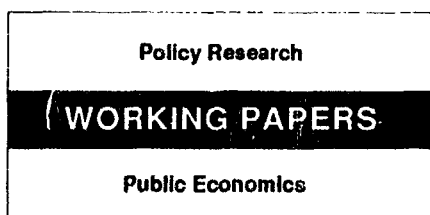


WPS 0869



Country Economics Department
The World Bank
March 1992
WPS 869

Financing Local Government in Hungary

Richard Bird
and
Christine Wallich

Further reform of Hungary's new system for financing local government should strengthen local own-source revenues and should revise the normative grant, simplifying it and making allowances for local governments' revenue-raising capacity.

This paper — a product of the Public Economics Division, Country Economics Department — is part of a larger effort in the department to deepen analysis of local government finance and intergovernmental relations. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, D.C. 20433. Please contact Ann Bhalla, room N10-053, extension 37699 (March 1992, 87 pages).

Hungary has undertaken bold, far-ranging reform of its system of financing local government. This reform, in the context of national fiscal reform, implies significant shifts in the spending responsibilities and revenue authorities of local governments as well as in their political relations with the central government.

The new system of local government has both political and economic merit: it involves Hungarians with their local governments in a positive way and can make government more efficient by subjecting it to the scrutiny of local officials and voters. But because the system is new, there are still lessons to be learned and some serious decisions to be made.

The new system of local government finance tries both to free local authorities from the heavy hand of central control (by ending central control over local spending, whether from central or local revenues) and to make them more responsible (by providing new sources of locally controlled revenues). But new local taxes are so inadequate that this well-intentioned experiment could end in disaster. Some regions may fail to provide adequate basic services (especially to the poor). Some may make increased demands on an already hard-pressed central government. And local governments might feel increased pressure to exploit enterprise and housing ownership and to engage in unwise entrepreneurial activities to raise revenues.

Bird and Wallich outline changes made in the system of local finance, assess their implications, and identify areas that need further reform. They describe the so-called normative grant from the central to local governments, for example, as

being largely discretionary, completely unconditional, and calculated according to a distribution formula geared to both "equalization" and "need."

Bird and Wallich argue that local governments can budget with more certainty if the grant is fixed to some national tax source and distributed in accord with a known formula so they are not totally at the mercy of a discretionary central policy.

They make a case for at least limited conditionality — for requiring that grant funds should be spent, for example, on a special priority area such as education or health, or by requiring that local governments receiving such grants should provide basic services at a minimum level of quality. And they insist on the importance of changing the formula for distribution of the normative grant — adding a third element to those of per capita equalization and need: that some explicit allowance be made for the revenue-raising capacity of local governments.

The options they recommend have three important effects. First, to varying degrees, grant funds will be shifted from high-tax capacity to low-tax capacity recipients. Second, all recipients, whatever their tax capacity, will be stimulated to tax that capacity at the assumed rate because if they do not do so the grant they receive will be reduced precisely by the amount they fall below the assumed rate. And finally, any recipient that levies higher taxes than assumed by the tax capacity element gets to keep all the extra revenues — that is, is not "taxed" by having its grant reduced. (In other words, the marginal tax rate is zero.)

The Policy Research Working Paper Series disseminates the findings of work under way in the Bank. An objective of the series is to get these findings out quickly, even if presentations are less than fully polished. The findings, interpretations, and conclusions in these papers do not necessarily represent official Bank policy.

HUNGARY COUNTRY ECONOMIC MEMORANDUM
LOCAL GOVERNMENT FINANCE IN HUNGARY

TABLE OF CONTENTS

Introduction	1
Part A: Local Finances: The Status Quo	2
I. Historical Background and International Comparisons	2
Local Government in The National Fiscal Context	3
Local Government in International Perspective	3
Local Government Finance in OECD Countries	3
Expenditures	5
Transfers	5
Taxes	5
II. The Status Quo: Expenditures, Revenues and Resource Management	8
Expenditures	8
Local Government Revenues	11
Local Taxes	12
Business Tax	15
Communal Tax	15
Land Tax	15
Property Tax on Buildings	15
Tourism Tax	15
Local PIT share	17
Grants	17
The Normative Grant	17
Normative Transfer: Amount	18
Allocation Formula of Normative Grant	19

We have benefitted from comments from Timothy Condon, John Crotty, Robert Buckley, Ulrich Thumm, Anwar Shah, and James Alm. The research assistance of Gabor Peteri is gratefully acknowledged. Any remaining errors are ours.

Targeted Grants	19
Specific (addressed) Grants	21
Grants for "Distressed Localities"	21
Other Revenues	21
Rents and Income from Disposition of State Assets	21
Duties, Fees and Pre-existing Taxes	22
Profits from Entrepreneurial Activities	22
Borrowing	24
User Fees, Benefit Charges	25
Municipal Budgeting and Accounting	25
Part B: Issues and Alternatives	25
I. Local Finance in the Macroeconomic Context	26
II. Property Management, Ownership and Asset Sales/Disposition	27
Entrepreneurial Activities and Ownership	27
Asset Sales and Disposition	28
III. Assigning Functions to Local Government: Expenditures	28
IV. Revenue Assignment: Issues and Options	29
The Choice of Local Taxes	29
Property Taxes	31
Income Taxes	31
Other Taxes	33
Local Own-Source Revenues: An Evaluation, and Some Recommendations for Hungary	33
Strengths of Present Taxes	33
Weakness of Present Taxes	35
Need for Fundamental Reform of Hungary's Local Taxes	36
V. Design of the Intergovernmental Transfer System	36
Closing the Fiscal Gap	36
Equalization	38
Fiscal Effort	39
Reforming National Transfers in Hungary: Some Recommendations	39
A Case for Conditionality?	39
Size of the Grant	42
Re-Design of the Grant: A Case for Incorporating Tax Capacity?	42

Three Illustrative Alternatives for Reforming Local Government Finance	46
Alternative I	46
Alternative II	47
Alternative III	47
Transition Issues	51
Some Qualifications	52
VI. Reforming Investment Grants in Hungary	52
VII. Borrowing, Capital Financing, and Other Issues.	54
VIII. User charges	55
Annex I: Simulations of Revenue Capacity, Grant Simplification and Alternatives for Reforming the Local Finances	58
Bibliography	87

Abbreviations:

SPMA	- State property management agency
MOF	- Ministry of Finance
CSO	- Central Statistical Office
MOI	- Ministry of Interior
PIT	- Personal Income Tax
IKV	- Property Management
APEH	- Tax Office
MOSW	- Ministry Social Welfare
VAT	- Value Added Tax
LSGA	- Local Self-Government Act

Boxes

Box A: Lessons from Experience: Local Finance in OECD Countries	5
Box B: General Expenditure Competencies and Local Government	9
Box C: The Need for Larger Local Government	29
Box D: The Benefit Model of Local Finance	30
Box E: Local Property Taxes: Some International Experience	32
Box F: Local Income Taxes: Examples from OECD	34
Box G: Basic Objectives of Transfers	37
Box H: Horizontal Fiscal Equalization in Denmark	40
Box I: Horizontal Fiscal Equalization in Germany	41
Box J: Estimates of Tax Capacity	44
Box K: Hypothetical Example: Alternative III	49
Box L: Administrative Aspects of a Local Income Tax Surcharge	50
Box M: Matching Grants	53
Box N: Local Borrowing	55
Box O: User Charges	56

Figures

Figure 1: Subnational Finance: Revenue Independence and Scale of subnational sector	7
Figure 2: Expenditure by Type	8

Tables

Table 1: Local Finance in the National Fiscal Context	4
Table 2: The Pattern of Local Taxation in the OECD, 1985	6
Table 3: Expenditures by Type, 1981-91	10
Table 4: Local Government Revenues	13
Table 5: Local Taxes, Tax Base and Rates	14
Table 6: Estimated Local Tax Yields: 1991	16
Table 7: Normative Grants	20
Table 8: Addressed Grants in 1991	21
Table 9: Local Government Assets: Disposal/Sale/Revenues	23
Annex Table 1: Local Government/Councils/Structure in Numbers and Percentages	83
Annex Table 2: Self Government Structure in Numbers and Percentages	84
Annex Table 3: Grant Subsidy for Disadvantaged Localities	85
Annex Table 4: Components of the Formula Grant, 1990	86

HUNGARY COUNTRY ECONOMIC MEMORANDUM:
LOCAL GOVERNMENT FINANCE IN HUNGARY

Introduction

1. Hungary has undertaken a bold and far-ranging reform of its system of subnational finances. These reforms, taking place against a background of fiscal reform at the national level¹ imply significant shifts in both the expenditure responsibilities and the revenue authorities of subnational governments, as well as in their political relations with the central government.
2. The new system of local government has many merits in both political and economic terms. Not only does it in principle involve Hungarians throughout the country in a positive and democratic way with their local governments, but it has the important potential of improving the efficiency of government in general by subjecting government actions to the scrutiny of responsible local officials and voters. On the other hand, precisely because the system is so new, there is still much to be learned, and some serious decisions to be made by both officials and citizens at large in order to ensure that these potential gains are actually realized.
3. The new system of local government finance attempts both to free local authorities from the heavy hand of central control and to make them more responsible. The former objective is to be accomplished basically by removing all central control over local expenditure, whether financed from central transfers or own-source revenues, and the latter by providing new sources of locally-controlled revenue. Unfortunately, the fundamental inadequacy of the new local taxes invokes the specter that possibly disastrous outcomes may ensue from this well-intentioned experiment. Increased local demands for transfers from an already hard-pressed central budget, increased regional divergence in the provision of basic social infrastructure and services (particularly perhaps to the poorest elements of society), and increased pressure on local governments to engage in unwise entrepreneurial activities, are among the consequences that seem all too likely in the absence of some revision of both local revenues and intergovernmental transfers.
4. This paper outlines the changes introduced in the system of local finance as a result of the 1990 Local Self-Government Act, and the 1990 Act on Local Taxes and provides a preliminary assessment of their implications as well as the need for further reform. These Acts, together with the annual Act on the Budget, which establishes both the criteria for the allocation of central grants to the localities and their overall volume, define the overall scope and authorities of Hungary's approximately 3100 new local self-governments. These Acts: (i) define the new assignment of expenditures between central and local government; (ii) define the new local revenue sources; and (iii) establish the economic foundation, property rights and entrepreneurial functions of the localities. The yet-to-be-passed Act on Property Transfer is expected to give localities major new responsibilities for property ownership, management and privatization.
5. The paper is organized as follows. Part A outlines the historical evolution of the system, provides international comparisons, and describes its present-day form. Drawing on this background, Part B suggests some revised policies that should not only both help avert the potentially undesirable outcomes of the current system but, more positively, help Hungary to achieve its goal of a smaller, more efficient government sector without unduly exacerbating social inequalities. In turn, issues and recommendations are discussed in the following seven areas: (i) local finance in the macroeconomic context; (ii) the assignment of expenditures; (iii) the assignment of taxes; (iv) the design of the transfer

¹See Tanzi, Vito, Editor, Fiscal Policies in Economies in Transition, IMF, Washington, DC, 1992.

system; (v) the role of the localities in property management, entrepreneurship and privatization; (vi) capital investment finance and borrowing; and other requisites for sound local finance such as (vii)

greater reliance on user charges and strengthened budgeting practices. An Annex explores some empirical relationships and seeks to illustrate the directional effects of the reform proposals.

A. Local Finances: The Status Quo

1. Historical Background and International Comparisons

6. Under the system of national finance in place until 1990, Hungary essentially had a unitary system of government and finances, with the local governments having little independent revenue determination or expenditure functions. The system mirrored that found in many other socialist economies prior to the transition, such as China, Poland, and Romania, in which central and local budgetary activities were accounted for within a single, "unified" national budget system.²

7. The 1523 "local councils" in Hungary had no legally separate identity, and were governed by 19 "county councils" in the context of the unitary government of the communist regime (see Annex Table 1). These localities undertook a wide range of expenditures as agents of the central government. While certain fees and duties (such as tourist fees, stamp duties, and license fees) were collected at the local level, the rates were fixed by the central government. Any need for additional revenues to cover expenditures was a matter for negotiation with the central government, and was channeled--through the counties--from the central budget.

8. The new system of local self-government represents a major political and economic change from the earlier regime. Politically, the reforms have legislated almost complete independence for local government and transformed them into self-governing units, with the elected Local Assembly as the decision-making body. As a result of the 1991 elections, the local government sector is currently politically dominated by parties in opposition to the main partner in the governing coalition. In addition, county towns collect certain fees, and divide these across local jurisdictions.

9. Following the passage of the Local Self Government Act (LSGA), in 1990, a major separation of economic functions was initiated. This Act defines the roles and functions of Hungary's 8 new regional bodies, 19 county and the 3070 local governments incorporated as of 1991 (see Annex Table 2). The Act represents a major redefinition of the rights and responsibilities of all three levels of local government. The responsibilities of the regional bodies have been dramatically scaled back.³ While they still retain a coordinating and supervising function, and a juridical function to review the constitutionality and legality of local decisions, virtually no fiscal functions remain assigned to the regional level.⁴ At the county level, the role has been significantly reduced also. Counties remain

²World Bank. "China: Revenue Mobilization and Tax Policy", Red Cover Report, Tanzi, Vito, Ed., Fiscal Policies in Economies in Transition, IMF, Washington, DC, 1992.

³These earlier functions and political status of the local governments are well outlined in Davey, as are the functions of present-day regional, country, and local bodies (1990, pp 2-3).

⁴Two important functions which remain with the regional bodies are (i) the information/dissemination" function, and (ii) the juridical function under the Commissioner of the Republic. The former requires the counties to collect data on fiscal performance and outcomes and to provide information and training to facilitate the implementation of changes in national fiscal policies which are implemented at the local level. The Regional Commissioner, among other responsibilities, determines the legality of local tax decisions and ensures their consistency with national law.

responsible for expenditures of an interjurisdictional nature which serve multiple localities. Their revenue sources have likewise been reduced; fees and duties previously retained by the county are now retained by localities, and counties no longer serve as a conduit for local finance from the central government.

10. Local Self-Governments (referred to in this paper as localities) have thus become directly responsible for most local government functions; this shift in expenditure responsibilities has been paralleled by a partial shift in taxing authority. A financial transfer from the central government to localities is designed to assist localities in meeting their obligatory expenditure responsibilities, as laid out in the LSGA. Though unconditional in nature, the grant is related in part to expenditure "norms" linked to the expenditure responsibilities of localities. Localities are in addition authorized to borrow, own and dispose of property, and to manage, establish and/or sell public enterprises.

Local Government in The National Fiscal Context

11. In the unitary system of finance and budgeting which governed Hungarian public finances until 1989, the finances of subnational governments had few macroeconomic consequences. The transfer to localities was a matter of negotiation between central government and localities, and, together with the transfers to extrabudgetary funds and extrabudgetary institutions, was determined so as to be consistent with the overall budgetary stance of the day. While localities might have aspirations for higher expenditures and transfer levels, under the unitary system their access to transfers was fixed. While the transfer was in principle fixed as the residual financing of localities (given their own revenues and expenditure needs), it was also in a sense the residual claimant on a fixed central resource pie. Table 1 below shows trends in the transfer over the period 1981-89. Under the unitary system, it ranged from 9.6% of the general government's consolidated expenditures to 11% in 1989. Since the passage of the Local Self-Government Act, the transfer has represented 13% (1990 estimate) and 17% (1991 budgeted) of consolidated general government expenditures.

12. The share of the transfer to localities rose in 1990/91 commensurately with the additional expenditure responsibilities such as health services and the assets such as housing and transport companies) transferred to localities. The system is in the early stages of operation, and it is premature to judge trends at this point, or the implications for the budget of larger fiscal transfers to localities. However, as outlined later in Section I of Part B, there is potential for macroeconomic vulnerability relating to, in the first instance, the dependence of the local governments on central transfers and the difficulty encountered by local governments in raising taxes by the projected amounts. (Local governments depend for some 82% of their receipts on central transfers) (See Table 1). In addition, there is the possibility that localities will recur to the central government for assistance in carrying out their newly assigned responsibility for "social assistance", the demand for which might grow with Hungary's worsening economic situation. There is also a backlog of un-met infrastructure improvements for which localities may also, within the framework of the Act, recur to the center.

Local Government in International Perspective

13. Local Government Finance in OECD Countries. Comparison of Hungary's local government sector with local governments in industrial and developing countries is revealing. Since one of the aims of present Hungarian policies is to move the country closer to what may be called the "European

Table 1 Local Finance in the National Fiscal Context
(Ft. Billion and Percent)
1981-89

	1981	1982	1983	1984	1985	1986	1987	1988	1989
Expenditures									
I. Total General Consol. Expenditure ¹	498.0	519.2	555.2	581.2	632.9	719.0	786.6	895.8	1087.8
II. Local Expenditure as % Total	24.7	26.0	25.4	25.0	27.1	25.0	25.1	25.0	23.3
III. Transfers to Local Government ²	47.9	53.1	59.4	65.9	66.5	75.1	81.5	97.6	123.3
IV. Transfer as % General Consol. Exp.	9.6	10.0	10.7	11.3	10.5	10.4	10.4	10.9	11.3
Revenues									
V. Local Revenue (Ft.)	105.6	115.9	122.1	128.5	147.6	156.9	169.5	205.2	243.0
VI. Local Own Revenue ³ (Ft.)	23.2	26.5	22.9	22.6	40.3	48.1	53.0	42.8	49.4
VII. Local Own Revenue as % Local Revenue	22.0	22.9	18.8	17.6	27.5	30.7	31.1	20.9	20.3
Memo Item									
- Transfer as % of GNP	6.1	6.0	6.6	6.7	6.4	6.9	6.7	6.9	7.2
- Consolidated Deficit (Ft.)	-24.7	-17.6	-9.5	3.8	-11.8	-31.8	-47.3	-0.6	-42.5
- Local Deficit as % Total Deficit ⁴	10.8	14.2	32.0	15.4	14.4	2.2	14.6	63.0	23.3

Source: GFS: (1981-89).

^{1/} Capital and current.

^{2/} Includes transfers to local government from social security fund for health care payments; excludes PIT share.
(Data excluding social security and PIT, for 1990 would be: Ft. 113; and for 1991: Ft. 185 mil.)

^{3/} Excludes PIT (includes GFS lines, 3, 4, 5, 7, V).

^{4/} GFS line S.15 - V. S.15.

norm--witness, for example, the extent to which the average size of government in Western Europe is postulated as a target for the size of government--it seems appropriate first to consider briefly what lessons about the structure of local finance may be suggested by OECD experience.⁵ (See Box .)

⁵See J. Owens and A. Panella, Eds., Local Government: An International Perspective (Amsterdam: 1991); R. Prud'homme, ed., Public Finance with Several Levels of Government (The Hague/Koenigstein: Foundation Journal Public Finance, 1991).

Box A Lessons From Experience: Local Finance in OECD Countries

A review of OECD experience suggests three important conclusions for sound local finance:

First, while there is much to be said for local taxes on residential property, there is little case for allowing local governments a free hand in taxing business, whether such taxes take the form of the nonresidential property tax, corporate income taxes, or local "business" taxes based on gross sales, type of business activity, or other indicators. Some such levies may of course be justified on benefit (efficiency) grounds, but they should always be strictly constrained within a uniform national tax structure in order to preclude localities from attempting to shift the costs of their services to outsiders.

Second, if a country wants local governments to be both large spenders and less dependent on grants, it probably must provide them with access to the personal income tax, preferably in the form of locally-established surcharges on the national income tax (or, if a different degree of progressivity is desired, local rates on the national tax base).

Third, much as there is to be said in principle for charging for local services, experience to date in most countries is not very encouraging. Even where the common philosophical objections to pricing in the public sector can be overcome, the prices charged are seldom those needed for efficiency. The potential for improved user charge finance as a means of financing local government thus remains more potential than reality.

14. **Expenditures.** While information on the distribution of expenditure functions by levels of government is difficult to obtain in a comparable fashion, evidence suggests that there is considerable divergence from country to country. On the whole, however, local governments in most OECD countries appear to be responsible for the delivery of most direct services to citizens, such as primary and secondary education, health, social welfare, housing, and the provision of local services such as street repair, refuse removal, and the like. Local governments in Hungary have broadly similar responsibilities.

15. **Transfers.** The size and pattern of local government revenues also varies greatly from country to country within the OECD. One common element, however, is that in no country do local taxes come close to financing local expenditures. In nine European countries for which information is available, local taxes accounted on average for 41% of local revenue in 1988 (ranging from 6% in the Netherlands to 57% in Spain). Non-tax revenue (such as user charges) for 20% (ranging from 6% in Belgium to 32% in Austria), and grants for 39% (ranging from 16% in Austria and Switzerland to 81% in the Netherlands). This compares with 17% in Hungary for tax and non-tax revenues together. While, as usual, there is considerable variation from country to country, in most countries grants include both general grants, often with an explicit equalization element, and specific grants of many varieties. In Hungary grants (including the "grant" of PIT transfers) finance 83% of local expenditure.

16. **Taxes.** In the countries for which information is shown in Table 2, income taxes are the most important source of local tax revenue in six of the eight countries in which local taxes account for more than 10% of total taxes, and in all of the five countries in which local taxes exceed 15% of total taxes. In only one country (Sweden), however, is the income tax the sole local tax, while there are four countries in which the property tax is the only local tax. Consumption taxes (often

Table 2 The Pattern of Local Taxation in the OECD, 1985

Country	Local Taxes		As % of Local Taxes ^{a/}		
	As % Total Taxes	As % Local Revenue	Income	Sales	Property
Hungary	1.8	5.7	0.0	29.0	71.0 ^{d/}
Australia	3.7	40.1	0.0	0.0	100.0
Austria	13.2	66.5	44.3	37.7	8.7
Belgium	5.2	33.4	79.8	14.4	0.0
Canada	9.3	37.0	0.0	2.0	98.0
Denmark	28.3	44.0	93.6	0.1	6.3
Finland	25.5	44.8	n.a.	n.a.	n.a.
France	9.0	45.6	n.a.	n.a.	n.a.
Germany	7.7	34.9	85.8	0.8	13.5
Ireland ^{b/}	2.3	5.7	0.0	0.0	100.0
Italy	3.4	6.3	n.a.	n.a.	n.a.
Japan	26.3	n.a.	57.9	17.2	23.6
Luxembourg	7.0	43.1	87.8	3.0	7.6
Netherlands	0.8	2.1	0.0	0.0	0.0
Norway	18.8	49.8	90.2	0.5	6.5
Spain	7.9	47.0	36.4	50.5	10.9
Sweden	32.6	55.2	100.0	0.0	0.0
Switzerland ^{c/}	17.0	52.8	87.0	0.0	12.2
United Kingdom	10.4	30.9	0.0	0.0	100.0
United States	12.6	38.8	5.9	19.6	74.2

Notes: a/ Figures may not add to 100% owing to "other" taxes.

b/ Preliminary data

c/ 1984 data

d/ Includes all property taxes and fees.

Source: Calculated from International Monetary Fund, Government Finance Statistics Yearbook, Vol. XII, 1988.

local "business" taxes of various sorts rather than conventional sales taxes) account for more than 10% of local tax revenue in only five countries, property taxes in nine countries and income taxes in 10 countries. Only Austria, Japan and Spain, however, have a "balanced" revenue structure in the sense that the revenue structure is not dominated by one tax. Seven countries may be categorized as income-tax countries and five (all predominantly English-speaking) as property-tax countries.⁶ In Hungary, locally-levied income taxes do not exist, (although the transfer of the central income tax

⁶In the Netherlands, which shares with Ireland and Italy (and Hungary) the distinction of obtaining less than 10% of local revenues from local taxes, no distinction is made between property and other tax sources, and the rather insignificant local taxes are classified as "other".

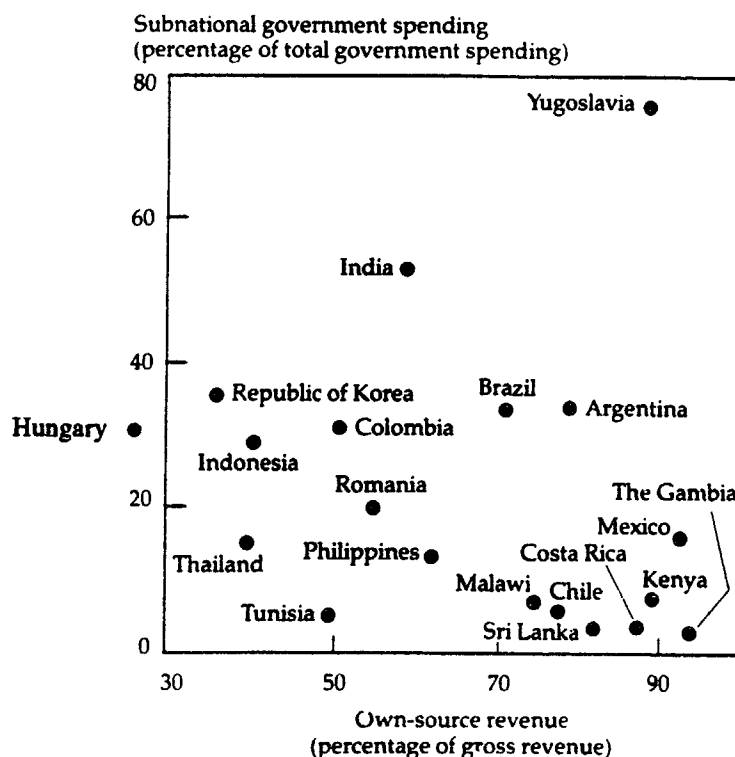
accounted for 12% of local revenues in 1991) and property taxes contribute less than 1% of local revenues.

17. Four conclusions are suggested by the range of outcomes sketched in Table 2. First, national governments clearly exercise considerable discretion in deciding how large a role local governments play, the extent to which local activities are financed from local revenues, and the types of taxes levied by local governments. Second, countries influenced by British traditions (Canada, U.S., Australia, Ireland) are those in which local governments rely most heavily on taxes on real property and least heavily on income taxes. Third, since no country seems able to raise much more than 10% of total national taxes from property taxes, local tax revenues are likely to exceed this proportion only when local governments have access to either sales or income taxes.

18. Finally, property-tax countries tend to have either less important local governments (as evidenced by a smaller overall expenditure share) (Ireland, Australia) or local governments more dependent on intergovernmental transfers (Canada, U.S., U.K.). In the five property-tax countries, local taxes on average constituted only 30% of local revenues (including grants), compared to an average of 45% for income-tax countries. Local governments may be well-established in these countries, but they are not particularly "responsible" in the sense of financing a greater proportion of expenditures from local taxes.

19. Developing country comparisons of Hungary's subnational government sector with some developing countries are also striking. Figure 1 below shows, for a variety of countries, the relative importance of the subnational fiscal sector in overall national finance, and the degree of fiscal autonomy which the sector has, as measured by the importance of its "own revenues" in total local revenues. With respect to the share of local spending in total spending, the subnational sector in

Figure 1: Subnational Finance: Revenue Independence and Scale of Subnational Sector



Source: WDR: 1988

Hungary is, at 25%, not insignificant. Moreover, because general government expenditures are such a large share of GDP in Hungary, local government expenditures in terms of GDP, at 14 percent in 1990, are in line with the EC average (higher than in Belgium, France, Portugal, Spain). With respect to the degree of revenue autonomy, Hungary's subnational governments are relatively revenue dependent, with own-source revenues only 17% of their total revenues (30%, including the PIT transfer). This compares with the subnational sector in countries such as Korea, and Indonesia, which are also large in the overall financial picture but are not self-financing, although Hungary's localities are comparatively much more transfer-dependent than these two. This is also consistent with the picture given by the OECD comparisons, which showed Hungary's localities to be transfer dependent. At the other extreme are countries such as Chile, Kenya and Sri Lanka, whose subnational governments' importance in the overall fiscal picture is small, but which are self-financing.

II. The Status Quo: Expenditures, Revenues and Resource Management

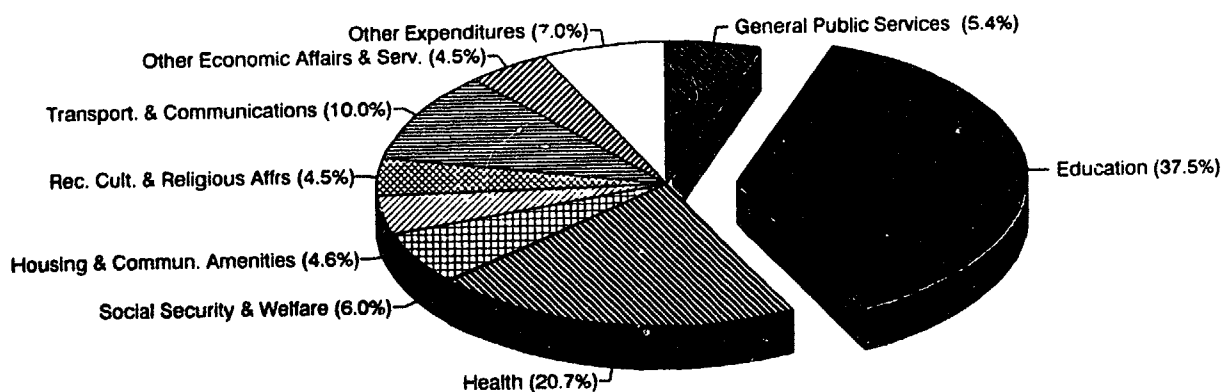
(a) Expenditures

20. Under the new Act, localities have certain required tasks. These tasks include: (i) supply of potable water; (ii) primary education; (iii) basic health and social services, including social assistance; (iv) public cemeteries; and (v) ensuring the rights of national and ethnic minorities. The Act also defines a range of other expenditures which are determined to be within their scope of "general competence", but which are not mandatory. Localities can undertake any task that has not been explicitly assigned to another level of government or body, in accordance with local preferences.

21. The general expenditure competencies specifically granted to localities are outlined in Box B. The performance of these tasks is discretionary, and relates inter alia to the revenue capacity of each local government and its preferred tax/expenditure mix. Table 3 shows local expenditures across major expenditure categories in 1981-91.⁷ By far the largest expenditure category is education (35%), followed by health, housing, and social welfare (see Figure 2).⁸

22. Within the education sector, pre-primary and primary education are mandatory functions for all localities (the existence of a primary school and a general practitioner appear to define the minimum

Figure 2 Expenditure by Type, 1990



⁷Disaggregated expenditure data is not available for 1991.

⁸The following discussion of local governments' expenditure responsibilities draws on Davey, Nov. 1990, (mimeo). The reader is referred to Davey (pp. 10-12) for additional information on expenditure responsibilities of local government in water supply, communal services and public transport.

Box B General Expenditure Competencies of Local Government

- (i) local development, resettlement, the protection of the (built and natural) environment,
- (ii) housing management;
- (iii) water management and the drainage of rainwater, sewage,
- (iv) the maintenance of public cemeteries, the maintenance of local public roads and public areas, local mass transportation;
- (vi) garbage collection and settlement cleaning;
- (vii) local fire protection and local tasks of public security;
- (viii) cooperation in local energy supply, in solving problems of employment;
- (ix) kindergartens, primary education, health care and social services;
- (x) supporting cultural, scientific, artistic activities and ethnic minorities;
- (xi) ensuring the enforcement of the rights of national and ethnic minorities;
- (xii) facilitation of the establishment of the communal "healthy way of life".

scale of a village: see paragraph 52 of the LSGA. Pre-primary education and after-school day care represent a significant fraction of total education outlays. A centrally set fee schedule applies to such services, but is cited by some localities to cover less than 10% of total costs.⁹ Secondary, technical, and vocational schools, while not mandatory, are typically financed by county level governments or larger towns. Each of these functions is supported to varying degrees by the central normative grant which is channelled to the locality providing the service (not the residence of the student). Educational facilities supported by non-budgetary institutions--e.g., a church- or an enterprise-based school, of which there are many, do not receive budgetary support.

23. In the health field, localities act as agents of the Social Insurance Fund (SIF) providing health services, including, in the larger towns, hospitalization. They provide health care services as determined by the MOSW, and are reimbursed for the cost of providing the services as well as medicines. Investment outlays are also a local responsibility, and financial support is available from central investment grants (see paragraphs 54-55).

⁹In addition, central guidelines exempt certain families from paying fees--families with more than 3 children, for example, pay reduced fees. This confusion of social objectives and financial policy is of concern to localities whose view is that they are in a better position to identify those in need.

Table 3 Expenditures by Type, 1981-91
(Ft. billion)

	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total expenditure	108.2	118.4	125.2	130.6	149.3	157.6	176.4	201.4	252.9
General Public Services	10.2	12.3	7.5	7.5	7.8	11.5	13.0	13.6	13.3
Public Order and Safety	1.0	1.0	--	--	--	--	--	--	3.0
Education	27.6	30.1	33.7	36.5	41.3	45.2	58.2	68.2	79.4
Health	18.1	19.8	21.5	22.8	24.7	26.6	31.5	36.6	48.4
Social Security & Welfare	2.6	2.9	4.4	5.2	6.1	6.9	7.7	9.8	17.7
Housing & Commun. Amenities	23.9	25.5	24.7	24.2	27.6	26.3	28.3	32.3	16.5
Rec. Cult. & Religious Affrs.	5.2	5.0	5.6	6.0	7.0	10.2	5.2	4.5	12.8
Fuel and Energy	3.5	4.6	1.9	2.4	3.2	2.4	3.3	4.1	1.3
Agricult. Forestry, Fish, Hunt.	.5	.5	.7	.9	.8	.8	.9	.4	2.7
Mining, Manufc. & Construct.	.7	.8	1.2	1.0	1.1	1.3	.4	.5	3.7
Transport. & Communication	5.6	6.1	9.5	10.8	10.9	12.2	13.4	13.6	27.9
Other Economic Affairs & Serv.	8.4	8.9	9.5	9.5	6.2	4.8	8.6	12.8	20.7
Other Expenditures	.9	.9	5.0	3.8	12.6	9.4	5.9	6.0	5.5
Memo: Capital Expenditures	36.9	38.2	40.0	39.0	40.5	43.2	51.3	54.7	58.6
Percentages									
Total expenditure	108.2	118.4	125.2	130.6	149.3	157.6	176.4	201.4	252.9
General Public Services	9.4%	10.4%	6.0%	5.7%	5.2%	7.3%	7.4%	6.8%	5.3%
Public Order and Safety	0.9%	0.8%	--	--	--	--	--	--	1.2%
Education	25.5%	25.4%	26.9%	27.9%	27.7%	28.7%	33.0%	33.9%	31.4%
Health	16.7%	16.7%	17.2%	17.5%	16.5%	16.9%	17.9%	18.2%	19.1%
Social Security & Welfare	2.4%	2.4%	3.5%	4.0%	4.1%	4.4%	4.4%	4.4%	7.0%
Housing & Commun. Amenities	22.1%	21.5%	19.7%	18.5%	18.5%	16.7%	16.0%	16.0%	6.5%
Rec. Cult. & Religious Affrs.	4.8%	4.2%	4.5%	4.6%	4.7%	6.5%	2.9%	2.2%	5.1%
Fuel and Energy	3.2%	3.9%	1.5%	1.8%	2.1%	1.5%	1.9%	2.0%	0.5%
Agricult. Forestry, Fish, Hunt.	0.5%	0.4%	0.6%	0.7%	0.5%	0.5%	0.5%	0.2%	1.1%
Mining, Manufc. & Construct.	0.6%	0.7%	1.0%	0.8%	0.7%	0.8%	0.2%	0.2%	1.5%
Transport. & Communication	5.2%	5.2%	7.6%	8.3%	7.3%	7.7%	7.6%	6.8%	11.0%
Other Economic Affairs & Serv.	7.8%	7.5%	7.6%	7.3%	4.2%	3.0%	4.9%	6.4%	8.2%
Other Expenditures	0.8%	0.8%	4.0%	2.9%	8.4%	6.0%	3.3%	3.0%	2.2%
Memo: Capital Expenditures	34.1%	32.3%	31.9%	29.9%	27.1%	27.4%	29.1%	27.2%	23.2%

Source: GFS: 1981-89.

24. **Housing** is also a local responsibility. The Local Self-Government Act transferred the ownership of properties previously owned by the "Local Councils" to their constituent localities (LSGA, paragraph nos. 1 and 98), including parks, recreation centers, utility companies and their lands, commercial enterprises owned by councils and other businesses. The soon to be passed Property Transfer Act will transfer the stock of public housing units (social flats) and commercial buildings to local governments.

25. With the transfer of assets, maintenance on these houses and properties has become a local responsibility; however, rents remain fixed by the central government, and are well below market

levels. The losses incurred as a result of this policy by the local housing maintenance corporations (IKV) were, until 1990, partially offset by central government subsidies. These subsidies have been fully phased out in 1991. For Hungary's cities, the phasing out of the residence subsidy and the fiscal implications of the housing transfer could be considerable. One view is that localities may be encouraged to sell housing rapidly to reduce the recurrent costs on the budget; alternatively, they may be encouraged to undertake potentially costly improvements to the properties, in hope of a higher future sale price. Indeed, many localities appear to be active in development of servicing vacant urban land.

26. Responsibility for social welfare and social assistance has also been transferred to localities under the Act. Responsibilities include the management of a variety of "social care facilities" such as old age and handicapped homes; the normative grant helps support the ongoing maintenance of these institutions. Localities also finance home-care services for the aged and handicapped, also supported through the normative grant.

27. The central government provides assistance through the SIF for unemployment, retirement pensions, and similar types of assistance.¹⁰ Local governments are then responsible for meeting the needs of those who are inadequately served by the central welfare system. Residual responsibility for old age, family and child assistance and other forms of "safety net" assistance for those not covered by the statutory social welfare systems thus lies with the localities, making them, in essence, responsible for front-line poverty alleviation. The nature or extent of their responsibilities varies according to the type of need: the central government has laid out guidelines for minimum income levels of e.g. pensioners, and the unemployed. Local governments are responsible for establishing need, determining eligibility, establishing assistance levels, and funding the resultant outlays. There may therefore be substantial differences between localities in the levels of welfare provided as well as in the eligibility criteria used. In a small village visited, the local government council made the determinations on the basis of applications brought by needy villagers, given its budgetary resources; in larger towns, there appears to be a more formal process involving social workers and the MOSW. The possibility of additional demands on central resources to enable localities to fulfill these tasks in a manner which appears to be just, should also not be ruled out. These issues are discussed further in Part B.

(b) Local Government Revenues

28. The Local Self-Government Act (paragraph 81) provides for a range of sources of finance for local governments. These include:

- (i) five local taxes assigned to the subnational governments, plus revenues from duties and fees set by the center;
- (ii) a share, currently set at 50%, in the center's personal income tax collection, allocated on a derivation (residence) basis to each locality (plus some additional PIT for equalization);
- (iii) a "normative grant" from the center, whose total amount is fixed annually in the State Budget, which is allocated across localities according to a combination of per capita and expenditure oriented weights;

¹⁰For a full discussion of the social welfare system in Hungary, see "Social Security Reform in Hungary", IMF, Washington, D.C., 1991.

- (iv) targeted matching and non-matching grants for investment,
- (v) profits from entrepreneurial activities;
- (vi) proceeds from the disposition of rental and commercial properties; and
- (vii) borrowing to finance investment or meet overdrafts and budgetary shortfalls.

The relative importance of these revenue sources in 1990 and 1991 is shown in Table 4; each is described in greater detail in the following paragraphs.

(i) Local Taxes

29. The Act on Local Taxes defines the taxes assigned to localities. Passed by Parliament in December 1990, the Act assigns five taxes to local government. These are (i) the business tax; (ii) communal tax (poll tax); (iii) property tax on land; (iv) property tax on buildings; and (v) tourism tax. The base, rates and exemptions of these five taxes are laid out in Table 5. With the exception of the business tax, these taxes basically extend the pre-existing "local taxes" collected and administered by the local councils under the previous system. A major consideration in assigning these taxes to the local government sector appears to have been the objective of full "independence" and a complete separation of taxing functions as between local and central governments: the possibility of building on the strengths of a superior central tax administration, and a broader central tax base, accompanied by devolution or a system of surcharges appears to have been unacceptable in the current political environment.

30. Localities may levy any or all of these taxes: For 1991, the transitional year between the old system and the new, the old local taxes will continue to remain in place, at centrally mandated rates lower than the present maxima unless the new, equivalent tax replaces it. (These pre-existing taxes are described below in the discussion of other revenues). It is expected that by end-1991, when the pre-existing taxes expire, localities will have chosen the taxes to be introduced under their new revenue authority and established their rates. In order to maintain nominal revenues at 1991 levels, the new taxes will have to yield at least as much as the pre-existing ones. The original MOF budget estimate was that for 1991, new local taxes would yield approximately three times the old.

31. The choice of tax(es), exemptions and the rates (subject to the provisos below) is left to the discretion of localities. The first proviso is that two taxes may not be levied on the same "object".¹¹ The second is that the pre-existing centrally-mandated preferences and exemptions may not be restricted. Third, locally set rates may not exceed the centrally mandated maxima set forth in the Act. All local taxes may be deducted by individuals and businesses from the central government's PIT and corporate income tax as costs.

32. In implementing these new taxes, local governments appear to be grappling with a number of issues. The overall national level of taxation was thought to be very high, and localities were loath to overburden residents with new taxes, for example, citing significant rent arrears as evidence of low capacity to pay. There were also concerns that higher local taxes would cause calls on social assistance to go up. Administration and collection also appeared to be an issue, with many localities

¹¹This is interpreted in a variety of ways by local government, but appears to mean that the same base cannot be taxed twice: a vacation home, for example, might be taxed as a "property"; under the tourist tax; or under the communal tax but not both.

Table 4 Local Government Revenues

Revenues	1990 Billion Ft Estimated	%	1991 Billion Ft. Budgeted	%
I. Own revenues ^{a/}	<u>51.1</u>	<u>(17)</u>	<u>65.2</u>	<u>(17.7)</u>
of which Local taxes	n.a.	n.a.	21.0	(5.7)
II. Shared personal income tax	<u>74.5</u>	<u>(25.7)</u>	<u>46.9</u>	<u>(12.7)</u>
of which PIT equalizing funds	4.5	(1.6)	7.0	(1.9)
III. Grants	<u>113.2</u>	<u>39.0</u>	<u>189.3</u>	<u>51.4</u>
(i) Normative grants:	(74.0)	(26)	147.0	(39.9)
of which:				
per capita based	--	--	58.3	(15.8)
expenditure norm-based	--	--	88.7	24.1
(ii) Specific grants	(29.0)	(10.0)	23.5	9.6
of which:				
targeted grants	--	--	(6.2)	(1.7)
addressed grants	--	--	(11.8)	(3.2)
grants for disadvantaged localities	--	--	(5.0)	(1.4)
other grant funds ^{b/}	--	--	(12.3)	3.3
IV. Social Security Fund Transfers	<u>44.1</u>	<u>15.1</u>	<u>63.1</u>	<u>17.1</u>
V. Credit, bonds & borrowing	<u>4.5</u>	<u>(1.5)</u>	<u>4.0</u>	<u>1.1</u>
Total	288.2 ^{c/}	100	368.5	100.0

^{a/} Includes asset sales, profits, fees, old taxes and duties.

^{b/} Unitemized grant flows (residual of budget totals for grants (III) less normative and specific grants.

^{c/} Excludes "Balance from previous year" of Ft. 5.9 billion.

Source: Ministry of Finance, and Peteri and Bukova, "The Economic Characteristics of Local Governments in Hungary," Budapest (mimeo) 1991, p. 15.

Table 5 Local Taxes, Tax Base and Rates

Base of the tax-assessment	Maximum Rate of tax	Exemptions
I. <u>Tax on buildings/Property</u>		
A. Useful area of the building in m ² :	300 forints/m ² year	<ul style="list-style-type: none">- All poor social flats- All properties less than 100m²- 25 m² per person living space- All "temporary lodgings"- Garages less than 16m²- Properties owned by any income-tax exempted entity (churches, foundations, non-profit organization, historical buildings, educational, health care)- All properties with prior exemptions
B. "Corrected sales value" of the building/i.e. 50 percent of the assessed value as per the Act on Duties 1/	3 percent of value	
II. <u>Tax on Undeveloped Plots and Land</u>		
A. The area of the plot in m ² ; or	100 forints/m ²	<ul style="list-style-type: none">- Land owned by transport companies- Land owned by Telecommunications Company
B. "Corrected sales value" of the plot a/	1 percent of value	
III. <u>Communal taxes</u>		
A. <u>Communal tax on private persons</u>		
Premises serving dwelling or other purposes and downtown plots	3000 forints per year per premise	
B. <u>Communal tax on entrepreneurs</u>		
Average number of people employed (proprietors included) by the entrepreneur.	2000 forints annually per person employed; if the activity is not carried out during the whole year, the tax has to be calculated by months	
IV. <u>Tax on Tourism</u>		
A. Tourists and non-permanent residents, for more than 48 hours.	Daily 100 forints per person over the first 48 hours: to be collected by hotel or home-owners.	<ul style="list-style-type: none">- Children under 16;- Students- Employed relatives- Tenants in social institutions
B. If the taxpayer owns a building in the self-government's territory suited for recreation or relaxation	Annually 300 forints per m ² of the building's basic area	
V. <u>Tax on Gross Receipts/Local Practice of Industry</u>		
The Gross sales-receipts of products sold or services performed, net of VAT paid.	3 pro mil. per year of the base of the tax; if the activity is carried out with a temporary/occasional/character, max. 5000 5000 forints per day.	All final-level retail sales

a/ Corrected value = 50% of government-determined "assessed price", which corresponds to 50% on average of actual observed market price.

considering the exemption of small business. There was much confusion about the meaning of "double taxation" as defined under the Act, and the legal status (and therefore the taxing authority) of the largest self-government--Budapest--was not clarified until mid-year.¹² At mid-1991, it appeared that very few--only 50 of some 3100 localities--had introduced any of the new taxes: Budapest and some of the larger municipalities appeared to be opting for the business tax, but it had not yet been introduced.

33. (a) Business Tax. The business tax is a gross turnover tax levied at all levels except retail sales, at a maximum rate of 0.3%. It may be levied on all enterprises, public and private, on gross sales revenue net of VAT and other consumption taxes. Localities wanting to levy this tax may obtain information on the gross sales of enterprises in their jurisdiction from the APEH (Tax Administration Office).

34. (b) Communal Tax. This can be levied in either of two forms: on household dwellings or on businesses. If on dwellings, it is payable (by the occupant) at Ft. 3000--per dwelling, regardless of the number of inhabitants; in this form it is suitable for localities which have a large number of government owned "social flats" and which cannot therefore rely on property taxes for revenue. If levied on enterprises, the communal tax is payable (by the enterprise) at a maximum rate of Ft. 2000 per employee.

35. (c) Land Tax. This is essentially a property tax on unimproved, privately owned land. It may be levied at a maximum rate of Ft. 100 per m², or 1% of the "corrected value" of the land, where "corrected value" is defined as 50% of the government-determined "assessed value", which is equivalent in turn to about 50% of observed market values. Publicly-owned land used for purposes which are not exempt from income or other taxes is also taxable.

36. (d) Property Tax on Buildings. Local governments can levy property taxes on all privately-owned buildings, such as flats, summer houses, garages, workshops, and other residential housing. The tax--if levied on the value and not the area--is similarly levied on a base of "corrected value" or the property in question, i.e., at 25% of market values.¹³ The tax base also suffers from a number of exemptions, many of them running well into the next century: for example, improvements to a property (such as a bathroom or new roof), under current law, exempt the entire property from tax for 10 years. Property tax office records, in some municipalities at least, show widespread exemptions, and almost exclusive reliance on area measures, not values.

37. (e) Tourism Tax. The tourism tax is an extension of the earlier "tourism fee", which could be levied only in resort areas; the present tax can be levied by all localities, and is charged at a rate of Ft. 100 per night for each night spent in a holiday hotel or hostel/accommodation, or according to the area (in m²) at a rate of Ft. 300 per m².

¹²Budapest is comprised of "Budapest" and 22 districts. The municipality's imposition of the business tax (which had been agreed would be subsequently shared with all the districts) was thwarted by a ruling of the Commissioner of the Republic, which deemed only the districts, but not Budapest to have taxing rights. Subsequently, Budapest was permitted to proceed with the imposition (and sharing) of the business tax as originally planned. This paper does not address the special problems of Budapest, which is a special case of local government in Hungary.

¹³With over 50% of housing in private hands, market transactions take place with some frequency although it is not clear to what extent records are maintained.

38. Estimated Local Tax Yields are shown in Table 6. The yields assumed in this table were calculated by the MOF, based on national aggregates of the local tax bases, as derived from a variety of sources. The CSO census of residential property and the housing census was used as the basis for the estimates of the property (land and building) tax and the communal tax on social flats. APEH data on enterprise gross sales and VAT payments provided the basis for estimating the yield of the business tax; tourism taxes paid in past years in municipalities where it was permitted to be levied; and labor force data on employees provided the basis for estimating the communal tax on entrepreneurs. These aggregated estimates were used because the brief time available for the drawing up of the local Tax and 1991 Budget Acts did not allow for more detailed estimates based on disaggregated data from localities. Ideally, estimates should have been derived from localities' existing tax and property records. In their absence, the estimated yields can only be considered very tentative, possibly inaccurate near term orders of magnitude.

39. The assumption underlying the estimated yields is that each of the some 3100 localities will levy the newly authorized taxes at rates equivalent to 20% of the maximum rates specified in Table 5. This yields a total estimated yield of Ft. 21 billion, assuming that these taxes were implemented and

Table 6 Estimated Local Tax Yields: 1991

Tax Type	Taxes on households			Taxes on Entrepreneurs			Total Potential
	Tax base	(x) Rate (=)	Tax Yield Ft. bil	Tax Base (x)	Rate (=)	Tax yield Ft. bil	Maximum Yield Ft. bil
1. Buildings (in million m ²)	30 ¹	300 Ft/m ²	9.000	120 ¹	300 Ft/m ²	36.000	45.000
of which: houses	10	300 Ft/m ²	3.000	--	--	--	3.000
2. Land (million m ²)	60 ⁵	100 Ft/m ²	6.000	705	100 Ft/m ²	7.000	13.000
3. Communal Tax							
Social flats (in mil)	1 ²	3.000 Ft/ per dwelling	3.000	3.5 mil. employees	2000Ft per employee	7.000	10.000
4. Tourism Tax	--	--	800 ⁴	--	--	--	800
5. Business Tax	--	--	--	9.000 ³	0,3%	27.000	27.000
Subtotal	--	--	18.800	--	--	77.000	95.800

Source: Ministry of Finance, Dept of Local Finance, mimeo.

1. Data on tax base is estimated from the CSO census of property. This shows there to be 2.5 million housing units with an average size of 67m²; Of the 167 million m² of tax base, 10 million m² is assumed to be taxable as housing, and 20 million m² taxable as other property (garages, etc.).
2. Data on number of social flats is taken from census of Property.
3. Amount shown is for the full year 1991.
4. It is assumed that all localities levy the tourism tax at the rate currently imposed by the settlements permitted to do so under the pre-existing regime.
5. Based on CSO Census of Property data showing land owned by entrepreneurs and land owned by individuals.

introduced effective January 1991. As of the mission's visit in June 1991, only a very few localities had implemented any of the above taxes.

(ii) Local PIT share

40. Local governments are projected to derive some 13% of estimated total revenues in 1991 from their share of the PIT. Consideration was given in the course of the preparation of the Act on Local Taxes to ceding or sharing a variety of taxes with the localities; because of the unequal spatial distribution of revenues from taxes such as VAT, sales tax or enterprise tax, as compared to the PIT, it was determined that the PIT should be the basic shared tax. (In these discussions, derivation was assumed to be the only basis for sharing the corporate tax and the VAT. No consideration was given to a formula allocation to distribute the ceded tax.) In 1990, localities received 100% of the PIT collected two years prior. Their share has been fixed in the 1991 Budget at 50% of total revenues collected, with the remaining 50% share added to the total available under the "normative grant". These proportions will henceforth be determined annually, in the Budget Law, as voted and approved by Parliament. For administrative reasons, the tax is paid to localities two years in arrears, the central tax administration requiring this much time to sort returns according to the location of the taxpayer's residence (which may differ from the taxpayer's work place or the tax office location). Localities in 1991 received Ft. 46.9 billion, compared to Ft. 169.5 billion of PIT budgeted to be collected in 1991.

41. Since there remains some unequal spatial distribution of PIT revenues, the 1991 Budget Act also guarantees that each local government will receive at a minimum, Ft. 5000 per capita (in towns) and Ft. 3200 per capita (in villages) from the PIT. In 1991, this Ft. 7 billion equalization supplement was intended to ensure that all localities, even poorer ones, receive at least 90% of the average per capita PIT share, while in 1990 the Budget Act had set it to provide each locality with no less than 75% of the average. The "PIT equalization supplement" is received by 89% of localities, almost all of them with fewer than 2000 inhabitants, and is financed from general government revenues; i.e., it does not come out of the 50% PIT share allocated to the normative grant.

(iii) Grants

42. Localities receive four types of grant from the central government. The first, and most important is the so-called "normative grant" which is unconditional in nature and intended broadly to redress the vertical imbalance in the present fiscal system. The second and third types, introduced in 1991, consist of so-called 'targeted' grants for investments in a prespecified list of investment activities; and 'addressed grants' for completion of specific investment projects. These grants, voted by Parliament, replace similar grants which were channeled through, and administered by the local councils. Finally, there are grants for "distressed areas".

43. (a) The Normative Grant. As of 1990, local governments receive a "normative grant" from the center. This grant represents some 39% of total local revenues, and is localities' single most important source of funds (See Table 4). The grant is fully unconditional in nature, in keeping with the "full autonomy" of local governments in respect of their expenditure and economic management, although its allocation across localities is in large part a function of specific expenditure categories. The grant is paid in 12 equal monthly installments, to the locality's agent bank.

44. Neither the overall magnitude of the normative transfer nor its allocation is set forth in the Self-Government Act, which prescribes only that a grant must be given, and that a formula, rather than a discretionary approach, must be used for allocating the grant funds. In this respect it is an important improvement over the previous system in which local expenditures and the revenues to support them were the matter of bargaining between the local councils and their subordinate localities. It is also

distinguished from the former system in that the localities now see the transfer as a "right" as distinct from a "subsidy".

45. Since the introduction of the Local Self-Government Act in 1990, the design of the normative transfer and its amount have been subject to experiment. In 1990, localities received 100% of the (1988) PIT (equivalent to 58% of the contemporaneous PIT). This benefitted the relatively better off localities since it is distributed largely on a residence basis. The normative grant was a relatively smaller proportion of local resources. In 1991, 50% of the PIT was added to the transfer pool; simultaneously with this enlargement of the pool, the number of norms governing its allocation was increased from about 12 to 22, to include, for example kindergartens, primary schools and a de minimis amount (US\$ 1.20 per capita) for "culture support" for theaters, in effect, decreasing the proportion of total funds allocated on a residence basis and increasing the share distributed on the basis of expenditure needs.¹⁴

46. The addition of these norms has to some extent been driven by the need to accommodate political interests. (See Annex Table 4 for a list of 1990 norms; 1991 norms are shown in Table 7.) More importantly, there are major philosophical differences between local and central government about the functions of these norms: localities take the view, not surprisingly, that all mandatory expenditure functions defined in the Act should be supported by either central grants or delegated revenue capacity (e.g., the PIT). The center takes the view that they should not be financing all locally assigned expenditures or, alternatively, this is in fact being done, and cites its estimates (discussed above) of the local tax yields to show localities have adequate financial basis.

47. **Normative Transfer: Amount.** The amount of the normative transfer is fixed each year in the Budget Act, and is fully discretionary, although certain principles are followed. The approach taken in both the 1990 and the 1991 Budget Acts appears to have begun by estimating the aggregate level of local expenditure (as deemed appropriate by the central government--in 1991 it was assumed to be the same percentage of GNP as 1990), and subtracting from this expenditure target, revenues accruing to localities from other sources, namely: PIT share; own tax collection (as estimated by the MOF)¹⁵; targeted grants, addressed grants; social security "pass-through" funds; revenues from fees, duties and other centrally regulated sources. The balance remaining is then fixed, as a first approximation, as the central normative transfer.

48. At the same time, the expenditure needs of the localities are assessed, and increased costs of service provision are estimated to arrive at an estimate of the adjustments required in the norms to account for e.g. inflation. While the "norms" are thus, in principle, intended to stay index-linked, should such automatic increases generate a transfer level which, from the center's perspective, is macroeconomically imprudent in light of other demands, further adjustments may be made to the per capita/lump sum transfer elements (or to the norms) to maintain the total within the bounds consistent with the State Budget's "carrying capacity".

49. In 1991, the normative grant was almost doubled in nominal terms over the 1990 levels, as a result of the transfer to the grant pool of 50% of the PIT, the addition of new norms and the upward adjustment of other existing norms. (The PIT share directly allocated to localities was correspondingly reduced.) Total grants and PIT together increased by 27% at a time when recorded inflation was 29%.

¹⁴A variant of the basic reform recommendation made in part B illustrates the implications of allocating PIT to localities on the basis of a simplified grant allocation formula (see discussion of Alternative II).

¹⁵See earlier discussion of the MOF methodology of estimating yields.

This contributed to an overall increase in total estimated local resources of 26%.¹⁶ For the future, there is no guarantee that either the overall resource growth, or the normative grant will be maintained in real terms, as this is decided annually in keeping with the capacity of the Budget.

50. **Allocation Formula of Normative Grant.** The manner in which the grant was allocated in 1991 is outlined in Table 7. There are essentially two elements to the formula: (a) The first element consists of "lump sum" transfers to each locality of Ft. 2 million per annum, plus Ft. 2000 per permanent inhabitant of the locality. This is intended essentially to provide a financial basis for small towns, and to provide some degree of "equalization"; (b) The second element consists of twenty-two expenditure-related weights, relating to localities' expenditures on their main areas of responsibility, such as primary schools, old age care, handicapped care, etc. Allocations are made only for "budgetary institutions"; where schooling or care is provided, e.g., by an enterprise or church, no allocation is made.

51. On average, these normative weights cover some 60% of the average total costs, nationwide, of providing the services. However, the proportion of costs covered is differentiated across services: the Ft. 44,000 grant for secondary schools covers some 90% of the service provision costs, while for primary schools the proportion is less than 50%; for old age homes, the normative amount covers more than full cost. The rationale behind the differentiation relates to the assumed local priorities in service provision: For services which are provided largely to non-residents or for services which the central government assumes might otherwise get low priority (handicapped care, etc), fuller coverage is provided.

52. In addition, there appear to be differences in service provision costs as between larger towns and villages: these imply additional variances in the proportions of total costs covered by the normative elements. Generally speaking, the norms cover a smaller fraction of cost in cities such as Budapest, on the grounds that their own resource mobilization capacity is commensurately greater. MOF intends to establish these costs more accurately and adjust the normative elements more closely by type and size of locality--in spite of the unconditional nature of the grant--so as to improve the perception of equity and transparency.

53. (b) **Targeted Grants.** While the normative grants are for operation and maintenance expenditures, targeted (matching) grants are made available to localities undertaking investments consistent with central government priorities. Under the Local Self-Government Act, localities have a right to grants for all investments meeting the criteria set forth in the law (1991 LSGA, paragraph 85). The matching requirement differs by sector, ranging from 25% to 60%: in education for example the grant finances only 40% of total expenditures. These matching requirements are not fixed by law. Grants are allocated on a competitive basis, within the overall limits set for targeted grants in the annual Budget Act. Localities forward requests to MOI, which weeds out those not conforming to the criteria established in the Law. In 1991, of the 2800 requests received amounting to Ft. 15.8 billion, some Ft. 8.5 billion met the criteria set forth in the Budget Act, but MOI put forward only Ft. 6.2 billion, consistent with the amounts allocated in the Budget, (1.7% of local revenues). A parliamentary compromise was reached whereby the eligible, but unfunded investments would be funded in the 1992 budget. It is not clear whether this carry-forward will be viewed as an addition to the investment grants required next year or as a subtraction from those grants--thus postponing the problem still further, but this potentially open-ended guarantee of investment grant finance needs to be addressed, and is discussed further in Sections I and VI of Part B.

¹⁶ The expenditure "capacity norms" themselves were adjusted by 16% (see MOF; "State Budget, 1991," "Public Finance in Hungary" Series).

Table 7 Normative Grants
Allocation Criteria
1991

Expenditure Norms	Per Capita Amount	Total Amount (000 Ft)	%
1. Lump sum grant to Village municipalities	2 Million Ft. ^{1/}	5 804	3.97
2. Lump sum grant per capita	2 000Ft per inhabitant/per person	21 095	14.41
3. Matching grant per Ft of tourist tax collected	2Ft./1Ft. fee	770	0.53
4. Communal services and activities	1400 Ft/inhabitant/per person	14 776	10.10
5. Subsidy for economically inactive pop: social tasks	3000 Ft/per inactive person ^{2/}	13 822	9.44
6. Child-care (in institutions)	210 000Ft per child	6 042	4.13
7. Homes for elderly	147 000Ft per person in home	5 786	3.95
8. Day-home care for elderly, handicapped	24 000Ft per person	1 188	0.81
9. Other homes for elderly,handicapped	40 000Ft per inhabitant/per person	110	0.08
10. Institution for young handicapped and retarded children	172 000Ft per child	1 468	1.00
11. Kindergarten (owned by municipalities)	15 000Ft per child	5 662	3.87
12. Kindergarten for nationalities & minorities	5 000Ft per child	70	0.05
13. Elementary/primary schools	30 000Ft per student	33 938	23.19
14. Elementary music schools	19 000Ft per student	1 383	0.94
15. Mentally handicapped at elementary schools	56 000Ft per student	1 729	1.18
16. Education at secondary schools	44 000Ft per student	5 471	3.74
17. Education at vocational secondary schools	54 000Ft per student	10 895	7.44
18. Skilled worker training schools	33 000Ft per student	6 879	4.70
19. Workshops for apprentices & students at training schools	36 000Ft per student	1 286	0.88
20. National, ethnic, and bilingual education	14 000Ft per student	676	0.46
21. Residents of dormitories and hostels (elementary, secondary)	53 000Ft per student	4 556	3.11
22. Local culture and public education	100 Ft per inhabitant/per person	1 060	0.72
23. For maintenance of theaters	450 Ft per viewers	894	0.61
24. Lump sum grant for counties, for education and other activities at regional level	50 million per county	1 000	
		146,360	100.00

Source: "Public Finances in Hungary", No. 77, Budapest, 1990.

^{1/} For municipalities with population over 200; for towns less than 200, amount is Ft. 10,000 per capita.

^{2/} Population 0-17 and 60-above.

54. (c) **Specific (addressed) Grants**. These grants are intended to finance completion of ongoing investments initiated during the earlier regime. As such, it is the ministry under whose jurisdiction (in the original Plan) they were first initiated which makes the request for completion funds to the MOI, not the locality as such. Consistent with this, there is no matching requirement, but the funds must be spent only on the intended investment. Eligibility criteria are broadly defined to include projects that are large, of regional importance, and serve a diverse population. The local assembly is accountable to MOI for the expenditures and O&M is the subsequent responsibility of the local government. As this is seen as a transitional financing device, the Local Self-Government Act does not guarantee funds to be available under this head (paragraph 85). As Table 8 shows, Ft. 12 billion was allocated in the 1991 Budget for such grants--3.2% of total local revenues, but this amount will presumably decline in the future.

Table 8 Addressed grants in 1991

	in million Ft
Water-management	496
Medical service	5620
Education and cultural services	546
Debt management	925,5
Other	4227
Total	11,814

Source: Ministry of Finance (from Peteri, op. cit.)

55. (d) **Grants for "Distressed Localities"**. The 1991 Budget also allocated Ft. 5 bill for localities, "who through no fault of their own", cannot achieve basic budgetary balance. By MOF's criteria, beneficiaries appear to include localities whose population structure (old age pensioners; unemployed) implies a limited tax base or PIT share. These funds are intended to meet only current account shortfalls, and are for municipalities which cannot meet even minimal maintenance and ongoing expenditure. Funds may not be used for investments or infrastructure; localities whose budgets include investment expenditures are not eligible. The maximum allowed each locality is Ft. 150,000 (small localities with population less than 1000) or Ft. 200,000 (with population above 1000). Requests for such grants were accepted by the MOF beginning in April, based on expected first half results, with 480 applications received; of these, 184 were accepted, with Ft. 2.6 billion of the Ft. 5 billion for the year as a whole being allocated (1.4% of local revenues). (See Annex table 3.)

(iv) Other Revenues

56. (a) **Rents and Income from Disposition of State Assets**. Local governments receive income also from sale of state property and from rental of flats owned by the locality. Rents are fixed by the central government at present, and rental property is typically managed by a locally owned property management company (IKV). Neither expenditures on maintenance, nor the rental income appears on the local budget: all rents accrue to the IKV and are earmarked, effectively, for maintenance and other expenses associated with the IKV activities which may include property development and

rehabilitation. The Housing Act to be passed by Parliament in 1992, is expected to allow localities/IKVs to set rents.

57. Localities also receive proceeds from the sale of housing. Housing sales are administered through the IKV which receives a fee for service; sales proceeds accrue to the local budget. As shown in Table 4, the revenues from disposition of housing assets remains minimal; the yet to be passed Property Transfer Act and transfer of government housing will give localities greater flexibility in the housing market. Discussions with some local governments indicated that the developmental and sales activities were viewed as a significant future source of income. In others, there was considerable concern about the costs of maintenance and possibility of "fire-sales" of their housing stock. Presently many of the housing sales are being financed by local governments at highly subsidized interest rates. There is a need to develop financial instruments to reduce the initial cash-flow cost to home buyers but at a lower economic cost than the current practice.

58. Localities and their agencies also receive additional revenues, albeit still minor, from the rental or sale of commercial properties; from the sale of locally-owned enterprises and from the sale and rental of plots. Table 9 outlines the local agencies to which, under the present arrangements, the rental or sale proceeds accrue. Data was not available on proceeds from these sources. In broad terms, rents accrue to the IKV; sales of small plots, and small or communal enterprises and commercial properties accrue directly to the municipal budget; while sales of major enterprises or commercial properties ("significant privatizations") are managed by the national State Property Agency (SPA), which shares the proceeds with the locality and uses the proceeds accruing to the central government for the reduction of the national debt.

59. (b) Duties, Fees and Pre-existing Taxes. In addition to the taxes defined under the new Act on Local Taxes, localities will continue to levy a range of centrally regulated taxes and fees, licenses, duties, and penalties. Among these are the vehicles tax or licensing fee, a specific levy whose revenue capacity is encumbered with a large number of exemptions. Fees are paid on inheritances, property transfers, and gifts, at rates ranging from 5-10% of the value of the transfer. Land transfers pay a reduced rate of 2%. These fees are shared between the county and the local government, and represent one of the few independent sources of revenues of the county governments.

60. Fees are also paid for use of facilities of public institutions, (books, meals, dormitory rents, library fees, after school day care, etc.). Set by the central government, these latter fees typically do not cover the costs of providing the service. The issue of user fees will be taken up in greater detail in Section II of Part B in conjunction with discussion of local tax capacity and revenue autonomy.

61. (c) Profits from Entrepreneurial Activities. In addition to their income from rentals and property sales, localities can and do own commercial and (to a lesser degree) industrial enterprises, from which they can receive dividends, or the proceeds of sale/privatization. While the revenues from privatization remain limited in scope at the present, localities appear to be optimistic about their abilities to enhance revenue from this source. One vehicle is to establish joint ventures with a domestic or foreign partner, or another state enterprise, using local assets as the locality's equity share. In those localities well endowed with land, this appears to be the preferred equity contribution, and localities appear also to see potential in developing and servicing empty land so as to enhance its value as equity. Tourism lodges, hunting parks, recreational facilities and golf courses were cited as examples of such ventures-in-process. Localities which have inherited important real properties see similar potential in developing these as contributions to joint ventures, with potato processing, bakeries, construction, wood-products among the range of such enterprises encountered.

Table 9 Local Government Assets : Disposal/Sale/Revenues 2/

Asset	Administered by:	Proceeds Retained by	Budgetary Status	Notes
1. Residential Housing (a) Rentals (b) Sales	IKV City council or local assembly determines whether to sell	IKV - Locality 1/ - IKV obtains fees for handling sale	Off municipal budget - Sales proceeds on budget - IKV's fees off budget	Rents controlled by central government. Local control over rents awaits passage of Housing Act. Sales prices confined to "corrected" value = 25% market value
2. Commercial Property (a) Rental (b) Sales: < 1000m ² (c) > 1000m ²	IKV or a municipal service enterprise City council or local assembly decides whether to sell State Property Management Agency	IKV - Locality - IKV obtains fees for handling sale 50/50 sharing by SPMA & Locality	Off municipal budget - Sales proceeds on budget - IKV's fees off budget Local proceeds on budget SPMA proceeds: off budget	
3. Enterprises Sales (a) Communal enterprise (b) Non-communal enterprise (c) Budapest's District enterprises (d) Enterprise profits and dividends	locality SPMA > 1000m ² < 1000m ² Locality	locality 50% locality 50% SPMA SPMA Locality 18% dividend to locality	On budget On budget Off budget ni ni On budget	Includes utilities transport, garbage, parks, etc. baths owned by locality as result of 1940's nationalization Under pre-privatization program
4. Plots: (a) Sales (b) Rental	Locality ni	Locality ni	On budget ni	

1/ In Budapest, 40% of proceeds of Housing sales go to the Budapest Housing Development Fund (BHDF); 60% to the 19 districts.
 ni = no information

2/ In Budapest, sales proceeds and rental income may not apply as shown in this table, as there are frequently different arrangements.

62. In contrast to taxation, entrepreneurial activity was seen by local governments as generating stable dividends for the budget, providing the locality with access to technology which might be diffused more broadly, and access to export markets and foreign contacts. Localities appeared to feel the necessity of engaging in such ventures themselves; simply providing the conditions in which local enterprises might flourish was not seen as likely to bring "private" enterprise to their region.

63. The properties which will accrue to the localities with the passage of the Property Transfer Act will give localities important new scope to use newly acquired properties in this manner (or to obtain revenues from their sale). Section II of Part B outlines issues and recommendations relating to local government asset ownership and entrepreneurial activity.

(v) Borrowing

64. The Local Self-Government Act (para. 88) grants localities unlimited borrowing authority. Bond issues and bank loans are the only financing sources available at present, and there is at present no "bank for local finance", or other organized window for local borrowing. Borrowing can take a number of forms: short-term borrowing for liquidity management (of up to 3% of total expenditures) can be initiated by the local mayor; financing would come from the local financial institution and would carry market interest rates. Long-term borrowing, to finance infrastructure, investments, property improvements or projects--requires the approval of the local assembly. Localities interviewed suggested that such borrowings would be sought from banks and that these would carry market interest rates, and medium term (5 years) maturities. Bonds were also cited as a source of funds, and one municipality indicated having issued them in the past to fund a particular project.¹⁷ In obtaining loans, localities are permitted under the Self-Government Act to mortgage properties owned by them as collateral for loans, with the exception of so-called "core properties", such as streets and public parks and areas. (These are defined in the Self-Government Act, para. 78.) County guarantees of local borrowing--common in the past--remain possible in theory, but are not likely to be forthcoming in practice, since counties no longer have secure sources of revenue and their role as a guarantor has correspondingly been weakened.

65. The present levels of indebtedness of some localities is striking, relating for the most part to borrowing undertaken in the past for projects in the investment plan of local councils.¹⁸ These loans, approved under the 'credit plan' of local councils in the earlier regime, have become the responsibility of the new self-governments, and represent, in a number of them, a major burden on the capital budget. In three municipalities visited, the "capital budget" consisted entirely of such debt service payments.

66. Data on borrowings since the inception of the Local Self-Government Act are not available at the aggregate level. Based on the mission's limited experience, it appears that some use is being made of the borrowing authorities, although in most localities it appears to be cautious. There was some evidence that certain localities are borrowing to finance payments on old debts coming due. Issues relating to capital finance and local borrowing are discussed in detail in Section VII of Part B.

¹⁷Data on aggregate bond issues or issuing activity of localities since the passage of the 1990 Local Self-Government Act was not available.

¹⁸Under the earlier system, repayments due on any borrowings approved under the national credit plan would also be guaranteed.

(vi) User Fees, Benefit Charges

67. There appears to be some, albeit limited, use of benefit charges for municipal services in certain localities. Connection charges for water, gas and sewerage were encountered, although it is not clear how widespread the practice is, nor to what extent localities follow full cost recovery in their pricing rules. Section VIII of Part B discusses user fees and cost recovery in more detail.

Municipal Budgeting and Accounting

68. Municipal budgets in the past were required to follow a standard format, showing both capital and current revenues and expenditures. Since the passage of the Local Self-Government Act, localities can no longer be compelled to follow this format, although they are required to report to the local county information agency, in a recommended format.

69. There appear to be significant shortcomings in current local budgeting procedures. As in many countries where socialist-style accounting procedures are in place, revenues include proceeds from borrowing, as well as proceeds from sales of assets, so that it is difficult to distinguish recurrent from non-recurrent sources of financing. It is also difficult to identify investment expenditures, as these appear in some cases under current expenditure heads, and 'capital expenditures' include payments for debt service. Total outlays on individual expenditure heads are also difficult to discern, as gross revenues and expenditures are shown under every budgetary head with no netting.

70. In addition, the long-term planning function appears largely absent, as does the development of a financing plan or long term strategy for investments and their financing.

71. The budget function needs to be significantly strengthened in Hungarian local finance. A number of aspects are inconsistent with international practice for local accounting. It is important also to ensure that, although localities may have full independence with respect to their finances, that budgeting is done in a consistent, unified manner across all of the approximately 3100 localities.

PART B: ISSUES AND ALTERNATIVES

72. Almost invariably countries assign more expenditure functions to local governments than can be financed from the revenue sources allocated to those governments. The result of this mismatching of functions and finances (sometimes referred to as "vertical imbalance") is that local governments are always dependent upon transfers from higher levels of government--often the more so the more significant the expenditures with which they are charged. Another pervasive problem of local government finance is "horizontal balance," or the need to cope with the reality that all local governments are not created equal. In even the smallest country, there are relatively big cities and small cities, heavily urbanized municipalities and rural municipalities, rich regions and poor regions.

73. Designing fiscal institutions to cope with this complex reality is a complex task, and the resulting design is usually equally complex. Sections III and IV below sketch some guidelines for the design of local expenditure and revenue structures. Sections V and VI then undertake the same task for intergovernmental transfers. Such transfers inevitably constitute an important source of local government finance, even when, as in Hungary, the model is closer to fiscal separation of different levels of government (the "layer cake" model) rather than their integration (the "marble cake" model). Local governments may, subject to some important qualifications discussed below, be separated from detailed central control over their expenditures and revenues. However, the dependence of all modern

fiscal systems on general income and sales taxes means that they cannot be both important and free from dependence on central transfers.

74. Part B also discusses issues and outlines options or recommendations in the following areas: local finance in the macroeconomic context (Section I); the role of the localities in property management, entrepreneurship and privatization (Section II), capital investment finance, and borrowing (Section VII); and the other requisite for sound local finance, greater reliance on user charges (Section VIII). Annex I explores some of these issues empirically.

I. Local Finance in the Macroeconomic Context

75. Local governments' major responsibilities are allocative and to a lesser degree, distributive. Nonetheless, the structure of the subnational fiscal system can have important effects on national stabilization policy. As a general rule, there is little reason to worry unduly about the effects of subnational governments on economic stability. Exceptions are when local governments are allowed to run deficits that are, in the end, directly or indirectly financed by emissions by the central bank.¹⁹ Detailed consideration of the factors determining local expenditures, local revenues, and intergovernmental transfers--and of the (usually limited) extent to which these factors reflect local as distinct to central policy choices--is required before any policy inferences can be drawn about the stabilization impact of the local financial structure. Thus, the simple observations that in a given year some proportion of the total general government deficit is attributable to the deficit recorded at the local level, or that central transfers to local government account for a certain percentage of the consolidated deficit, convey little information.

76. Given the assignment of expenditures and revenues in Hungary, central transfer will continue to be large. Localities presently depend on transfers for 83% of their total receipts (including PIT, normative and other grants and social security), and local own taxes and fees account for 7% and 10% respectively of total revenues. While budgetary flexibility is obviously desirable from the central government's short-run point of view, it is a mistake to view central transfers to local governments as constituting an entirely "compressible" portion of the national budget. What is required is a system that is certain, transparent and meets the needs of both central government and localities.

77. Many of the services provided by local governments constitute essential infrastructure for Hungary's future development and it is impractical to think that most of the small local governments created in Hungary can ever finance the provision of such services at an adequate level out of their own resources, either now or in the foreseeable future. Central grants to local governments will thus remain an important expenditure item in the central government budget.

78. In these circumstances, some countries have opted in favor of establishing a total which is formula-driven, e.g. a specified percentage of total national revenues, or a particular national tax or taxes. This approach represents a compromise choice in which the center gives up some degree of revenue but also insulates itself from ad hoc and possibly escalating demands from localities, while localities avoid discretionary cutbacks in local transfers to meet stabilization objectives, with all the expenditure dislocations that this implies. For Hungary, regularizing the overall size and distribution

¹⁹This has occurred in countries as diverse as Argentina, Brazil and China. See "China: Revenue Mobilization and Tax Policy", IBRD, 1989 and "China: Financial Sector Review", IBRD 1990 and A. Shah, "Macroeconomic Balance and the Division of Powers in Brazil", WPS No. 587, IBRD, 1990.

of the transfer, and strengthening local finances by broadening the local tax base to improve local tax yields, represent priority reform.

79. In addition, the possibility that local governments' open-ended expenditure responsibility for "social assistance" might lead them to recur to the central government for additional funds should also be addressed. Within the present political system and Hungary's macroeconomic constraints, this can only be done imperfectly, by giving additional weight within the grant formula, to equalization objectives. Specifically, one might want to give more weight to those expenditures required to maintain social assistance at nationally desirable minimal levels. However, in light of the fact that the normative grant is unconditional, there is no guarantee that localities would spend that money in the desired fashion.

80. Finally, the central government may also want to rein in its open-ended obligation to provide finance for local investments on a (matching) grant basis (see Section VI below). While an accommodation has been reached for 1991 to achieve consistency with the 1991 budget ceilings, a resolution should be explored for the longer term which is consistent both with macroeconomic constraints of the central government, and the efficient financing of investments by local governments.

II. Property Management, Ownership and Asset Sales/Disposition

81. (a) Entrepreneurial Activities and Ownership. An important factor motivating the Report's recommendations to give localities some expandable source of revenue other than the current set of local taxes is the even less desirable path which localities appear to be pursuing of real estate development and business entrepreneurship. There is considerable danger that the soon to be made decisions on property transfer will give full scope to the entrepreneurial ambitions in the local governments, and that, exploiting their new-found property rights, driven by the pressure to "activate" idle property, and faced with the difficulties of selling property or businesses in the present environment, the country will soon be awash with many local government owned businesses undercutting both private competitors and their own tax base, while falling prey to the "developmental" opportunities and projects that will undoubtedly be offered to them.

82. It is important to recall that in the market economies, the rate of small business failure is high: statistically only 20% (one in five) of such businesses survive their first three years, and there is no reason to expect that localities in Hungary can successfully defy these odds. Pressures will arise once again to subsidize local business, to maintain employment, and the role of the government in the economy will not have diminished.

83. Most importantly, this entrepreneurial activity by localities is fundamentally inconsistent with the privatization drive, and represents a bottleneck to true decentralization--that is, decentralization, not from the state to local governments, but to the private sector. Local government entrepreneurial activity represents neither privatization nor decentralization.

84. In sum, the business of government is not business, and the more rapidly the risks of such activity are understood by localities the better for both them and the Hungarian economy. The introduction of an improved framework for local finance may provide a suitable occasion for moving

towards this by removing the pressures all localities are feeling at present faced as they are by the prospect of declining central transfers in real terms and a relatively inadequate local tax base.²⁰

85. (b) Asset Sales and Disposition. Many local governments are using proceeds from asset sales to finance their current operations, an approach that is clearly unsustainable. In many localities, asset sales, sometimes at very low prices, are viewed as an attractive substitute for, and are delaying the development of, a more robust local taxing capacity, while stripping localities of valuable properties.²¹ While asset sales can yield "revenues" in the near term while the stock lasts, they do not represent a permanent source of funds, and localities should take steps soon to develop their capacity to raise recurrent revenues (This is discussed in Section IV below). The revenues from asset sales might, for example be used to finance new local investments: this would essentially change the form that the locality's assets take (from e.g., housing to local amenities) but would leave the locality's total asset base unchanged.

III. Assigning Functions to Local Government: Expenditures

86. While local governments may have some effect on stabilization policy and some role in distributive policy²², their major economic role is clearly with respect to the allocation of resources. From an efficiency point of view, the basic rule of expenditure assignment is to assign each function to the lowest level of government consistent with its efficient performance. So long as there are local variations in tastes and costs, there are clearly efficiency gains from carrying out public sector activities in as decentralized a fashion as possible. From this perspective, the only services that should be provided centrally are those for which there are no differences in demands in different localities, where there are substantial "spillovers" between jurisdictions that cannot be handled in some other way (by contracting, or by grant design), or those for which the additional costs of local administration are sufficiently higher to outweigh its advantages. In short, most public services should probably be delivered at the local level, with local decision-makers deciding what services are provided, to whom, and in what quantity and quality.

²⁰How to limit local business involvements, and how this is best enacted--whether in an Act of Parliament or some other regulatory means--remains outside the scope of this work.

²¹See D. Newbery; "Reform in Hungary: Sequencing and Privatization"; European Economic Review. No. 35, 1991; pp 571-580. His argument against a rapid, approach to sales is that many of the assets may have been financed with debt (localities have substantial liabilities, as noted above), in which case the proceeds should be used to pay off this debt, rather than burdening present and future local taxpayers with debt service. Even where there are no liabilities, it may be distributionally attractive as well as economically efficient (less dead-weight loss) to raise revenues from privatization than from taxes. In a high-tax economy such as Hungary's, the distortion of additional taxes may be quite high, since the distortion rises with the square of the tax rate. The prima facie efficiency case for obtaining revenues from appropriate non-tax sources is thus also high, and also rates high in equity grounds.

²²Since local governments are governments as well as service agencies, they are inevitably interested in the distributive as well as the allocative effects of their policies. Income redistribution at the local level will of course be severely limited by the openness of the local economy so local governments may be concerned with distribution, but not be able to accomplish a great deal.

87. In the case of Hungary, for the most part, the expenditure functions assigned to local governments appear both logical and in line with those found in most countries. This issue is therefore not discussed further here, except to emphasize the need to develop a system of uniform and informative local budgeting coupled with timely expenditure reporting. Logically, however, given the very small size of many Hungarian localities, there is a strong case for assigning some services, e.g., secondary education and hospital care to large units, as is done for example in some Scandinavian countries. (See Box C.)

Box C

The Need for Larger Local Governments

The average population of Hungarian localities is only 3482 (2834, excluding Budapest), 2368, or 74%, of these villages have less than 2000 inhabitants. As in other countries, many of these local governments are simply too small to provide efficiently all the public services demanded from them. Hungary may have something to learn in this respect from the experience of other countries.

In Finland, for example, where the average population of a commune (local government) is 10,700, the 460 communes are organized, on a voluntary basis, in a number of municipal federations to provide particular services. There are, for instance, 100 such federations in the health care field (and it has been proposed that this number be further reduced to 21). These federations are under the control of the communes. In addition, the regional agencies of the central government are responsible for such activities as highway construction and maintenance, environmental protection, and tax collection and may also collect taxes on behalf of the communes.

Similar special purpose municipal federations exist in other Nordic countries to provide such services as health care, transportation for commuters, and certain types of education. In addition, all the Nordic countries also have so-called "secondary communes", county-like bodies with their own elected government, which are responsible for providing certain services to an area encompassing a number of communes.

A similar "two-tiered" structure of local government exists in most countries under a variety of names and with numerous variations with respect to its degree of independence from the central government on the one hand and from the primary or lower-tier level of local government on the other hand.

Source: Lars Soderstrom, "Fiscal Federalism: The Nordic Countries' Style," in R. Prud'homme, ed., Public Finance with Several Levels of Government; (The Hague/Konigstein: Foundation Journal Public Finance, 1997).

IV. Revenue Assignment: Issues and Options

88. **The Choice of Local Taxes.** The essential purpose of local taxes is to finance locally-provided collective public goods for local residents. (See Box D, "The Benefit Model of Local Finance"). If such goods are truly "public" in the sense of accruing equally to all residents of the jurisdiction (including not just final consumers but also businesses) and if redistribution to other than national standards is not an aim of local public policy and if administrative (and compliance) costs are left out of account, the best source of local revenue might perhaps be an equal per capita levy such as the poll tax, which also has the virtue of being economically neutral or efficient in the sense of

Box D

The Benefit Model of Local Finance

The essential economic role of local government is to provide to local residents those public services for which they are willing to pay. Local governments must be accountable to their citizens for the actions they undertake to the extent those citizens finance those actions. Similarly, as developed below, local governments must be accountable in some sense to the central government to the extent they are financed by transfers. Accountability is the public sector equivalent of the "bottom line" in the private sector.

Accountability in this sense clearly requires that local governments should, whenever possible, charge for the services they provide, and, where charging is impracticable, they should finance such services from taxes borne by local residents, except to the extent that the central government is, for reasons to be discussed, willing to pay for them. Public sector activities are unlikely to be provided efficiently unless the lines of responsibility and accountability are clearly established. On the one hand, local governments need to be given access to adequate resources to do the job with which they are entrusted; on the other, they should also be held responsible to those who provide these resources --local residents or central governments, as the case may be -- for what they do with them.

In principle, local governments should therefore not only have access to those revenue sources that they are best equipped to exploit--such as residential property taxes and user charges for local services--but they should also be both encouraged and permitted to exploit these sources as fully as possible. Unless local governments are given some degree of freedom with respect to local revenues, including the freedom to make mistakes for which they are accountable, the development of responsible and responsive local government will remain an unattainable mirage.

There are of course dangers in permitting local governments even limited freedom. One danger in the eyes of some is that they will not utilize fully all the revenue sources open to them, thus allowing the level and quality of public services in some areas to deteriorate below the standard considered desirable. But this is not a real problem. If the service in question is really one of national importance (e.g. research) or one in which there is a strong national interest in maintaining standards (e.g. poverty alleviation), it should be nationally funded at least in part and its achievement monitored. If it is not a matter of national interest, why should the national government be concerned? If the local electors do not like what their local government does, or does not do, they can "throw the rascals out" at the next election. The freedom to make mistakes, and to bear the consequences of one's mistakes, is an important component of local autonomy.

Another danger, more salient from an economic perspective, is that local governments may attempt to extract revenues from sources for which they are not accountable, thus obviating the basic efficiency argument for their existence. To counter this inevitable tendency, central governments should in principle deny or limit access to taxes that fall mainly on nonresidents such as most natural resource revenues, pre-retail stage sales taxes and, to some extent, nonresidential real property taxes.

Another way to counter this problem to some extent may be to establish a uniform set of tax bases for local governments (perhaps different for different categories such as big cities, small towns, and rural areas), with a limited amount of rate flexibility being permitted in order to provide room for local effort while restraining unproductive competition and unwarranted exploitation.

giving rise to no excess burden. In practice, however, differential local poll taxes are easy to evade by moving. Even those who do not flee may be hard to tax: the low efficiency costs of the poll tax seem likely to be purchased at the expense of high administrative and compliance costs. There is also reason to believe that some residents--property-owners, people with school age children, or whoever--benefit more than others from the provision of local public goods. That is, while there may be no reason to levy specific benefit taxes there may be good reason for some local residents to pay more than others.

89. If, for example, the demand for local public goods is income elastic, a benefit case can be made for a local income tax--or, more feasibly given the high administrative costs of separate local income taxes, a local surcharge on the central income tax. If the enjoyment of such goods is associated with consumption (rather than residence), a benefit case can similarly be made for a local tax on consumption, which would in practice almost certainly have to take the form of a retail sales tax. And finally, if the benefits of local public goods are enjoyed in proportion to the value of real property there is obviously a case for a local property tax.

90. In practice, the fiscal situation facing most central governments in developing countries is such that they are unlikely to give local governments direct access to either income or consumption taxes (with the occasional exception of cumbersome, low-rate gross receipt taxes of various sorts), thus often leaving the property tax as the only significant local tax, whether or not one thinks the benefits from local provision of collective goods and services are in fact distributed in relation to property values. Some of the implications of this choice, and the case for allowing local governments access to the income tax, are sketched briefly below.

91. (a) Property Taxes. There are important constraints on the use of property taxes for local finance (see Box E): First, although the administration of the tax can certainly be improved in most countries, there will always remain severe problems in administering it in a horizontally equitable fashion, particularly when prices are changing rapidly. Second, the temptation to indulge in politically painless but economically inefficient "tax exporting" means that severe constraints should be placed on the degree to which local governments are permitted to tax businesses if the property tax is to be an economically desirable source of local revenues. Third, both because of its faults and its virtues, heavy reliance by local governments on the property tax probably ensures that they will also continue to be heavily dependent on intergovernmental grants to finance their activities.

92. Despite these political and administrative problems, the property tax remains a significant source of revenue for local governments in many countries--particularly, of course, those in which it has been well-established historically. And, there are good reasons for taxing real property both as a local tax and as a tax in general. Although relatively expensive to administer, such a tax scores quite well in terms of both its efficiency and its equity aspects. Moreover, if levied at the local level, a property tax can serve as a good means of financing local public goods.

93. However, there are three important provisos: First, an adequate national framework and law should be established to prevent unwarranted local manipulation of the base and rate structure and in particular undue loading of the tax burden on nonresidents. Second, local governments must be provided sufficient technical support to carry out their role in the administrative process. Third, local governments must be permitted to vary their tax rate (e.g., annually), such rate flexibility is essential if the tax is to be adequately responsive to local needs and decisions.

94. (b) Income Taxes. The OECD experience summarized in Part A suggests that some form of local income tax, generally levied as a supplement to national income taxes is the obvious alternative (or supplement) to property taxes. If more local "own-source" revenue is desired--either to expand the

Box E

Local Property Taxes: Some International Experience

While a large number of countries depend on property tax revenues, this is not always an easy tax to implement. As experience in a number of countries has shown in recent years, there is often widespread resistance to the property tax, especially when too much revenue is sought from this source. The recent U.K. experience with the poll tax and the earlier so-called "Proposition 13" movement to limit property tax rates in the U.S., illustrate the strength and political importance of resistance to the property tax. Dislike of the property tax seems to result in part from the visibility of the tax and in part from certain inherent problems in its administration.

Local taxes on real property are more visible than other taxes for several reasons. First, unlike the income tax, the property tax is not deducted at source but generally has to be paid directly to the municipality by taxpayers in periodic lump sum payments. Taxpayers who pay taxes directly to government tend to be more aware of the size of their tax bill than those whose take-home pay is reduced by weekly or monthly tax deductions. The need to make such periodic large payments may well add to the accountability and responsibility of local governments, but it also greatly increases the sensitivity of taxpayers to even nominal increases in taxes.

Secondly, the inelasticity of the property tax has a similar effect. Since the base of this tax does not as a rule increase automatically over time, the periodic nominal increases in property tax bills needed to maintain real revenues when price levels rise require increased tax rates. In terms of political accountability, this need to confront the people with the cost of government again represents a virtue of the property tax; again, however, the downside is the heightened visibility of nominal tax increases and the accompanying political resistance.

Thirdly, local property taxes of course finance such municipal services as education, roads, garbage collection and snow removal. The quantity and quality of these services (or their absence) is thus readily linked to the property tax. When potholes develop in their street, taxpayers are understandably quick to question the taxes that supposedly finance street repair. Once again, the very feature that makes the property tax a good source of local government revenue in principle makes it especially vulnerable to political resistance.

Other problems result from property tax administration. As a rule, property is supposed to be assessed on the basis of its market value, usually defined as the price struck between a willing buyer and a willing seller in an arm's length transaction. In reality, however, discrepancies usually arise between assessed values and market values within classes of property, between classes of property, and across municipalities for both political and technical reasons.

Within-class inequity is perhaps the most significant from a policy perspective because it is the most visible. For example, two single-family houses each worth \$100,000 may be assessed at very different ratios of market value depending on their location, the size of the lot, the age of the structure, and other factors. Centrally-located properties and older properties, for instance, are generally relatively under-assessed compared to suburban and newer properties. Since taxpayers can easily compare their property taxes with those of similar properties in their neighborhood, such discrepancies lead both to specific assessment appeals and to general pressure for tax relief.

Single-family homes are usually under-assessed relative to apartments, and residential property generally is under-assessed relative to commercial and industrial property. There is no justification on benefit grounds for the higher taxation of non-residential property. Indeed, one could argue for lower taxes on non-residential property because such properties as a rule use fewer services (e.g. education). Taxing non-residential property also facilitates "tax exporting," thus breaching the important principle that (in the absence of spillovers) local taxes should be paid only by local residents.

Finally, assessed-to-market value ratios may be higher in one municipality than another, especially when assessment is done by the municipalities themselves.

Some assessment biases result from problems inherent in the estimation of market value. Where a property has recently been sold its market value may be easily determined, but where a property has not sold for several years and in particular where it has some unique characteristics, the determination of market value is an inherently difficult task. Moreover, when property values are changing rapidly even annual reassessment (which is too costly to be practical) would mean that assessed values are always out of date. Assessed values are thus at best only a rough estimate of true market value and hence always vulnerable to appeals.

size of local activities or to make local governments more self-reliant-- OECD experience suggests there is much to be said for supplementary "piggybacked" local income taxes. (See Box F.)

95. Such income taxes, like the property tax, would be transparent and hence in principle satisfy the criteria of political responsibility and accountability. However, the fact that income tax revenues tend to grow elastically, while good news for local officials, suggests that, if reducing size of government is a goal, increased reliance on local income taxes should be viewed with mixed feelings. On the other hand, since an income tax is usually perceived as more progressive than a property tax, it scores higher than the latter on equity grounds.

96. (c) Other Taxes. It is especially important to provide adequate flexibility to exploit good local tax bases to avoid creating a situation in which the only flexibility available to local governments in their struggle to cope with budgetary pressure is by exploiting such economically undesirable sources of revenue as local business taxes (which are not really "local" because they are paid in whole or part by nonresidents) or, even worse, profits derived from ownership of local business enterprises. Enterprising municipalities should not be encouraged to develop local monopoly enterprises in order to secure the revenue they need to function.

97. Finally as emphasized in the "benefit model" approach to local taxation (see Box D), an important concern in designing local taxes is to ensure that the access of local governments to taxes that may be exported is restricted so that the link between local taxing and local expenditure decisions --required for efficiency--is retained.

Local Own-Source Revenues: An Evaluation, and Some Recommendations for Hungary

98. Two basic principles of local revenue assignment are: (i) Local own-source revenues should ideally be sufficient to enable at least the richest local governments to finance from their own resources all local services primarily benefitting local residents; and (ii) Local revenues should be collected from local residents only, preferably in relation to the perceived benefits they receive from local services.

99. Unfortunately, the five new taxes assigned to local governments in Hungary fall short of achieving these aims. In combination, these levies are most unlikely to produce sufficient revenue to even come close to the first of these two objectives, all of them breach the second objective, and several of them suffer from other inherent design problems. Much the same can be said with respect to local revenue from "charges" and (to the extent they will continue under the new system) the old "duties".

100. Strengths of Present Taxes. The local tax which is both desirable in principle and has a significant revenue potential but only in the long run is the property tax. Unfortunately, at present the only information many (if not all) local governments seem to have on which to base such taxes is area--and even with respect to area the exemptions specified in the law (and carried over from the old system) ensure that not much revenue is likely to be collected from this source for some years. Moreover, not only is the rate differential established in the law between vacant and built-up property questionable, but local governments are not given the freedom to set their own (uniform) tax rate on residential property that they need if this tax is to become a mainstay of responsible local finance. On the other hand, the ability of local governments to tax business property should of course be severely restricted to restrain tax exporting. Both some recasting of the present national framework for local property taxes and, most importantly, substantial national assistance in developing an adequate valuation base for such taxes are necessary if the property tax is to become an important component of Hungarian local finance.

Box F

Local Income Taxes: Examples From OECD

The concept of a local tax, as opposed to a national tax, seems clear. In reality, it is not. A "truly local" tax, for example, might be defined as one (i) assessed by local governments, (ii) at rates decided by local governments, (iii) collected by local governments, and (iv) with its proceeds accruing to local governments. In the real world, however, many taxes have only one or two of these characteristics.

The present Hungarian income tax, for example, accrues in part to local governments, but its rates are set by the national government, which also assesses and collects it. Such a tax might be considered to be either a local tax or a central government grant allocated to local governments in proportion to the amount of national income tax collected locally. On the other hand, the Canadian income tax, which accrues in part to the provinces (more accurately, to those participating in the tax collection agreement), is also assessed and collected by the national government for the most part; but the provinces themselves set the rates of "their" tax. In effect, the provinces have contracted (for a small percentage of the amounts collected) with the national government to take advantage of its comparative advantage in tax collection. While this tax is still a "hybrid", since the determination of the tax base is entirely in the hands of the central government, it is usually considered to be a provincial rather than a national tax.

The best-known examples of local income taxes are those in the five Nordic countries (Denmark, Norway, Sweden, Finland, and Iceland). In these countries, with some important variations, the local tax is basically levied at a flat, locally-established rate on the same tax base as the national income tax and is collected by the central government. In contrast, in Belgium (as in most Canadian provinces) the local surcharge is levied as a percentage of the national tax liability rather than the national tax base. A similar system exists in Switzerland, where most cantons--the intermediate level of government--allow local governments (communes) to levy surcharges at locally-established rates on the cantonal income taxes--taxes which are, incidentally, like most U.S. state income taxes, in no way harmonized with the central income tax.

Less well-known is the unique system of local income taxation in Japan. Corporations are subjected to a municipal tax assessed largely on the basis of national corporate taxes paid in the previous year, with the tax base being allocated to the different jurisdictions in proportion to the number of employees. In addition, corporations are subject to a progressive municipal "enterprise" tax based directly on income. Perhaps the most unique feature in Japan is that all these taxes are assessed and collected locally. In 1984, taxes on corporations yielded 16% of municipal tax revenue in Japan and taxes on individuals yielded 34%. In addition, municipal governments obtained an additional 33% of their tax revenue from a "fixed assets tax" levied on assessed values determined by the municipalities in accordance with national government guidelines. With some variations, the general picture is the same for Japan's second level of local government--the prefectures.

German municipalities also receive significant revenues from an even more complex tax on businesses (gewerbesteuer) levied in part on profits, in part on payroll, and in part on property. When this enterprise tax is applied to individuals operating businesses, its rate varies with the category of business activity (as is also true with the local taxe professionnelle in France). Individuals are also subject to both a progressive local income tax on the same base as the national income tax and a poll tax (like the soon-to-be-abolished British "community charge") levied at a nationally-determined per capita rate which varies with the size of the municipality. Only the latter, however, is levied on nonresidents working in the municipality.

101. Two other sources of local government revenue, in contrast, deserve much more attention than they seem to have so far received. The first is the taxation of motor vehicles. At present, it appears that this base is not generally exploited in Hungary. In many countries, vehicles are subjected to taxes designed to some extent to offset the social costs attributable to vehicles. While such taxes should probably be designed and imposed uniformly throughout the nation to avoid obvious administrative problems, there is no reason why these revenues should not be assigned in part to the local governments in which the vehicles are registered. Further discussion of this topic, however, would require fuller consideration of road finance than has been possible in the present study.

102. In some ways the most important source of local own-source revenues that needs to be further developed is user charges for services provided to specific and identifiable persons (or groups) by local governments. Fiscal pressures are increasingly inducing local governments in Hungary (as in nearly all market economies) to impose such charges, e.g., on the parents of pre-primary children. What is needed is a thorough review of these and other local fees and charges from the dual perspective of both local government finance and the various services affected such as education, health, and housing. This issue is discussed further in Section VII below.

103. Weaknesses of Present Taxes. The only new local tax with much revenue potential in the near future is the tax on business turnover. Although the goal of some localities in levying this tax is to "charge" enterprises for the use of local infrastructure, user fees and the property tax are a less distorting way of achieving this aim. While the present low-rate tax on business turnover is not likely to do much economic damage, such a cumulative business tax of course produces precisely the same kind of tax cascading as Hungary has tried to eliminate at the national level by adopting a VAT. This problem, and the resulting loss of competitiveness, will become more serious if, as is likely, the increasing pressure on local finance leads to rate increases in the turnover tax in the future. More seriously, as presently designed, with the explicit exclusion of retail sales from the tax base, this tax encourages both tax exporting and local attempts to manipulate the tax system for incentive reasons. Tax exporting is of course the antithesis of rational local finance, and local fiscal incentives to production have a dismal record throughout the world, so neither of these features of the turnover tax is desirable.

104. The high proportion of social housing in Hungary--a proportion that will undoubtedly decline but is likely to remain significant for some time--suggests that an argument can also be made for levying some form of local communal tax on public housing tenants.²³ Although it seems likely that the new "communal" tax will prove more difficult to administer in Hungary's increasingly mobile society than seems to be generally realized, such a tax, while it is never likely to yield much revenue, may thus have a minor role to play in local finance for some time. As in the case of the property tax, however, local governments should probably be given considerably more leeway in specifying the rates of such taxes than is now the case.

105. Perhaps the least desirable tax in the new package is the tourist tax. Tourist establishments (including second homes and cottages) should of course be subject to general local business and property taxes. But there is no reason at all to encourage fiscal irresponsibility by making it especially attractive (through the "bonus" feature in the normative grant--see item 3 of Table 7) for local governments to impose taxes on nonresidents: they need to be restrained from such actions, not encouraged. There is also no justification for allowing local taxes as a deduction from the central government's PIT for individuals, just as there is none for allowing deduction of other costs of living.

²³It is assumed that social assistance and general income support are provided primarily through national channels: the communal tax on social flats is consistent both with this assumption, and with the view that local governments should not misprice their services for distributive reasons.

Doing so introduces a bias against user charges, which are presumably not so deductible. (Of course, both charges and taxes should be deductible from business income.)

106. **Need for Fundamental Reform of Hungary's Local Taxes.** In the long run, the potential for greater own-source revenue of Hungarian local governments thus seems to lie in the more systematic development and exploitation of the potential for local charges and the development of an adequate basis for local property taxation, perhaps combined with some local revenues from vehicles. In addition, at least for the immediate future, severely limited local access to business taxation through something like the present low-rate tax - preferably extended also to retail sales, and uniform across all activities - may prove necessary, at least until the property tax system is adequately developed.

107. However, since even the richest local governments can never be expected to finance most of their expenditures from local sources, local governments will have to have direct access to one of the national tax bases, such as the VAT or the PIT. Since under the present system they already have access to the PIT, and the PIT is in fact the most logical of all national taxes so far as sharing with local governments is concerned (see paragraph 94), the proposals later in this section assume that this will continue. In effect, in one of its variants, the reform proposed is to remedy the inherent inadequacy of the local tax base by changing the nature of local access to the PIT. Since the proposed change in the PIT can only be understood in the context of the proposed change in the normative grant, it is discussed in Section V below.

V. Design of the Intergovernmental Transfer System

108. Transfers in many ways constitute the heart of subnational finance. In themselves, transfers are neither good nor bad: what matters are their effects on policy outcomes such as allocative efficiency, distributional equity, and macroeconomic stability. Intergovernmental fiscal transfers play several distinct roles in countries with decentralized governmental structures. (See Box G, "Basic Objectives of Transfers"). In the first place, such transfers are used to "close the fiscal gap", i.e., they generally constitute the principal way in which such countries achieve "vertical fiscal balance", that is, ensure that the revenues and expenditures of each level of government are approximately equal. Second, transfers are used to achieve "horizontal fiscal balance" ("equalization") among local governments. Thirdly, transfers can be used to stimulate local fiscal effort, that is, to encourage localities to raise their own resources. (In addition, transfers can be used to influence local spending decisions in accordance with central preferences, as discussed further in Section VI below.)

109. (i) **Closing the Fiscal Gap.** For various reasons, both economic and political, central governments usually have much greater revenue-raising capacity than do local governments. Intergovernmental transfers are one mechanism by which some of the revenues accruing to the central government are transferred to finance the deficits of lower levels of government. Of course, such fiscal gaps may also be closed, and vertical fiscal balance restored, by transferring revenue-raising power to local governments, by transferring responsibility for expenditures to the central government, or by reducing local expenditures or raising local revenues. In all countries, however, as noted above, there invariably remains sufficient mismatch in the revenues and expenditures assigned to different levels of government for an important balancing role to be assigned to intergovernmental fiscal transfers.

110. Three important characteristics of this process deserve attention: First, all transfers from higher-level to lower-level governments, no matter what they may be labeled, help close the fiscal gap opened up by the original unbalanced assignment of expenditures and revenues. Second, irrespective of how such transfers are made--for example, on an equal per capita basis or on a derivation basis (that

Box G

Basic Objectives of Transfers

There are four basic economic rationales for intergovernmental transfers:

- (i) The first rationale is to transfer resources (even to the richest local governments) to close fiscal gaps arising from the assignment of revenues and expenditures.
- (ii) The second rationale is to provide local governments with sufficient resources to enable them to provide a specified bundle of public services and to respond adequately to incentive grants. Such transfers should generally be based on measured fiscal capacity and, depending on the extent to which value is attached to local autonomy per se, may be either unconditional or conditioned on the performance of the specified services.
- (iii) The third rationale is to face local decision-makers with (socially) correct prices with respect to externalities arising from their actions.
- (iv) The fourth rationale is to maximize the impact of central expenditures in certain areas by inducing local governments to spend from their own resources as well.

The last two rationales imply that transfers should take the form of matching grants, with the rate of matching dependent on such factors as the degree of central interest and the estimated price and income elasticities of local demand for the services in question (see Box M).

In addition to these economic arguments, there are of course important political arguments for transfers in all countries. It may be necessary, for example, to transfer some resources to jurisdictions that do not, strictly speaking, need them in order to make it politically feasible to transfer needed amounts to other jurisdictions. It may also be essential to transfer resources simply in order to keep some economically non-viable local governments alive for political reasons - to salvage regional pride, to provide jobs for local supporters, or for some other reason. In both these cases, the main design problem is to minimize any collateral damage to the presumed economic objectives, both by achieving the political ends in as cost-effective a way as possible and by trying to ensure that the design of such transfers offsets the good features of other transfers as little as possible.

In general, rules are more conducive to the attainment of economic policy objectives than discretionary actions. Even bad rules may at least have the virtue of clarity and predictability: if transfers are the least predictable source of local government revenue as has been true at times in some countries, they are unlikely to achieve any objective very efficiently or effectively. On the other hand, it may at times be quite sensible for central governments in effect to make individual contracts with particular local governments - though preferably for a period of years rather than on an annual basis and preferably in an open and agreed fashion. Given the diversity of many countries and the usual political necessity to have nominally uniform laws, only such a contract approach may be able to provide the necessarily non-uniform terms needed to secure the desired outcomes at least cost.

The main substantive aim of a well-designed transfer program is to get the prices right in the sense of facing local decision-makers with the full consequences of their actions. The first step in getting the right incentives from intergovernmental transfers is therefore, as argued in Section IV, to establish the local public finance system itself as much on a benefit basis as possible. Ideally, local own-source revenues should come entirely from local taxpayers. Local governments should not have access to taxes that they can export to non-residents (except to the limited extent such taxes may offset the provision of local public goods that lower production costs).

Given such a system, the next step is to recognize that (in a non-federal system) local authorities must fundamentally be responsible to the central authorities or, more accurately, to taxpayers at large, when they are spending central funds. There is thus in principle little role for completely unconditional transfers - except, of course, to the extent that such "transfers" are not really transfers at all but rather simply central collection of local taxes, as discussed earlier. Since unconditional transfers in this system are essentially motivated by politics, the concern in these cases should primarily be to limit the damage done to policy outcomes: for example, transfers that simply finance local deficits or that are entirely discretionary in nature are invariably bad.

On the other hand, transfers intended to encourage spending on a specific local service, whether because it generates externalities or because it is more efficient to administer the service locally, should generally require some local contribution (matching) and should of course be conditional on the performance of the service in question in accordance with specified standards. Both the determination of the appropriate matching rates and the extent of central support and monitoring of local performance are obviously matters for close concern and study with respect to each specific program (see Box M).

is, returning revenues to their presumed point of origin)--care must be taken to ensure that they do not impact adversely on such presumed central policy goals as poverty alleviation and public sector efficiency. Third, in principle, vertical fiscal balance in an accounting sense may be said to be achieved when expenditures and revenues (including transfers) are balanced for the richest local government, measured in terms of its capacity to raise resources on its own. Fiscal gaps may still remain, of course, for all poorer local governments, but vertical fiscal balance (between levels of government) will nonetheless have been achieved: what remains is the important problem of achieving horizontal fiscal balance among localities.

111. (ii) Equalization. Horizontal fiscal balance has attracted much attention in the literature on fiscal federalism and multi-level finance. Equalization, as it is usually called, has proved a controversial policy objective in many countries, not least because it is a concept with many different interpretations. For example, if horizontal fiscal balance is interpreted in the same gap-filling sense as the vertical fiscal balance discussed above, this implies a level of transfers sufficient to equalize actual expenditures of each local government. Such "fiscal dentistry" makes no sense, however. Making up all gaps between actual outlays and actual own-source revenues for all local governments, like equalizing the actual outlays of local governments in per capita terms (that is, raising all to the level of the richest local government), ignores differences in local preferences for public and private goods. Such equalization also ignores local differences in needs, in costs, and in own revenue-raising capacity. Moreover, equalizing actual outlays clearly discourages both local revenue-raising effort and local expenditure restraint, since under this system those with the highest expenditures and the lowest taxes get the largest transfers.

112. For these reasons, in all countries with formal systems of equalization transfers, the aim is either to equalize the capacity of local governments to provide a certain level of public services or to equalize actual service performance by local governments. Transfers in some systems might be conditioned on both capacity and performance, by requiring the specified package of services to be provided. Alternatively, in a "truly" federal system in which local preferences are assumed to dominate national preferences for local public goods, such transfers should in principle be unconditional--even if the result is that local governments reduce their taxes or build municipal palaces rather than pay school teachers, as the national government might prefer.

113. The capacity approach aims to provide local governments with sufficient funds (own-source revenues plus transfers) to enable them to deliver a centrally determined level of service.²⁴ It does not require service provision to a set standard. Differentials in the cost of providing services may or may not be taken into account. Transfers based solely on capacity measures do nothing to ensure that the recipient governments will in fact use the funds they receive as the central government might wish--unless grants are conditional. This approach broadly characterizes the Hungarian system, although (as emphasized below), it does not include any explicit measure of capacity.

114. The service performance criterion adjusts the transfer received in accordance with the locality's need for the aided service (it may allow for cost differentials) and is in principle more attractive to central governments and those concerned with maintaining service standards in e.g., education or social assistance. (Elements of this approach may also be detected in the Hungarian system.) The level of service to be funded is determined centrally and the transfer can be made conditional on the provision of that level of service. Unfortunately, this approach suffers from the

²⁴Because such capacity-based transfers generally take into account measures of potential revenue-raising capacity (such as taxable assessed values, equalized to adjust for differences in the ratio of assessed to market values in different localities, or the so-called "representative tax system") no disincentive to fiscal effort is created.

same disincentive effect on the revenue side as equalizing actual outlays, since that government which tries least again gets most--unless an adjustment is made for differential fiscal capacity (see below).

115. How equalizing either approach is in practice depends on how the standard of services to be financed is set. Full horizontal fiscal balance (full equalization) will be achieved only if the revenue raising capacity assumed by the grant is set at level which could be afforded by the richest local government: otherwise, the disabilities of below-average localities relative to those that are above average will obviously remain. The only exception to this statement is when the positive transfers required to bring those below the average up to the average are financed by negative transfers from those above the average (as in the finanzausgleich of Germany or the Danish local government grant scheme). As the discussion of the latter in Boxes H and I show, however, even such "self-financing" equalization schemes may leave substantial differences between localities.

116. (iii) Fiscal Effort. While the evidence is far from clear, there is some empirical support for the commonly-expressed belief that transfers often tend to discourage local fiscal effort. Nonetheless, it is generally not appropriate to include "fiscal effort" explicitly in a transfer formula. (This could be done, for example, by having transfers related to the difference between the effective tax rate in the recipient municipality and the average national rate.) First, the measurement of fiscal effort is considerably more complex than is usually realized. If, for instance, tax bases are sensitive to tax rates (so that the base declines if the rate is increased), then the usual measures overestimate capacity in low tax-rate areas. And by the same token they will underestimate the effort needed to increase taxes in such areas.

117. More importantly, putting too much weight on fiscal effort in allocating grants unduly penalizes poorer areas. The problem in poor areas is that their capacity (tax base) is too low, not that their tax rates are too low. Most fiscal effort measures inevitably reward the richer governments, which find such tests easier to meet. Imposing such an additional penalty on the poor in a transfer program seems hard to justify. In these circumstances, the implicit inclusion of an "average" fiscal effort target in the grant formula constitutes sufficient recognition of the possible disincentive effects of transfer on effort.

Reforming National Transfers in Hungary: Some Recommendations

118. A number of changes seem desirable in the present structure of Hungary's central-local fiscal transfers. Proposals with respect to the design of matching grants and the revision and development of the "targeted" grants are outlined in Section VI below. This section focuses on the most important source of local revenues at present, the so-called "normative grant."

119. As presently structured, this grant has three important characteristics. First, the total amount to be distributed to local governments is entirely discretionary. Second, the grant is completely unconditional: local governments can spend the money however they see fit. Third, its distribution formula contains both "equalization" and "need" components". As shown in Table 7, the per capita component represents the former, while the second, and larger, part of the grant is largely distributed by measures of expenditure "needs", particularly with respect to education.

120. A Case for Conditionality? In principle, there seems little rationale for such large unconditional grants to so many small local governments. The central government and taxpayers in general have a legitimate interest in what is done with grants to local governments. Moreover, the nation as a whole also has a legitimate concern to ensure that services such as education and health are available throughout the country at minimum standards.

Box H

Horizontal Fiscal Equalization in Denmark

The scheme of local government grants in Denmark clearly separates the "vertical" and "horizontal" functions of grants. The size of the first component of the general grant--there are also a number of selective grants--is determined in accordance with national budgetary needs. This component is then distributed to localities (communes) in proportion to the relation to the ratio of their actual tax base to the average tax base in the Copenhagen metropolitan region. If their tax base exceeds that in Copenhagen, of course they will receive no grant.

A more unusual feature of this scheme is that the equalization (horizontal) component of the grant is financed outside of the central government budget: the additional positive grants needed to raise the capacity of poorer localities to the pre-determined standard are financed by "negative grants" (in effect, taxes) on richer localities. No attempt is made to eliminate completely differences in either capacities or needs, but 52% of capacity differences (taking all local taxes into account) and 35% of need differences (calculated in relation to age structure, etc.) are eliminated in this way.

The basic equalization grant formula (simplified by omitting a correction for regional wage differentials) may be written as follows:

$$g_i = b_1(y_c - y_i)e_i/y_c + b_2(z_i - z_m)$$

where b_1 and b_2 are parameters ($b_1 = .52$ and $b_2 = .35$, respectively), g_i is the grant received by the i th locality, y_c is the average tax base in the Copenhagen metropolitan region, y_i is the tax base in the i th locality, e_i is the actual expenditure in the i th region, z_i is the calculated expenditure need in the i th region, and z_m is the calculated average expenditure need. The results of this calculation are corrected as necessary to ensure that the positive and negative grants balance and there is no need for additional central government financing. (There is, however, an extra grant for localities with less than 85% of the national average tax base.)

An important advantage of the Danish system is that it separates the level of the general grant to local governments from the equalization feature of the grant: the former can then be varied in accordance with the needs of national stabilization policy (and such other features as, for example, the appearance of substantial surpluses in local budgets) without affecting the latter.

Source: Soderstrom (as cited earlier)

Box 1

Horizontal Fiscal Equalization in Germany 1/

Germany's approach to governmental equalization is distinguished by its "brotherly", as distinct from "paternal" nature. By this is meant that the richer states help out the poorer--the transfer does not come from the center. Since 1955, the law in various forms has incorporated a state financial settlement designed to offset differences in taxable capacities, but with some allowance for "special burdens" facing particular states.

The actual settlement is worked out as follows: first, the tax capacity yardstick of each state is calculated by the addition of revenue from (i) state taxes, (ii) the state's share of the joint taxes according to local yields, and (iii) half of the property and trade taxes of the municipalities, also according to local yields. Deductions are then made for any special burdens (extraordinary expenditures) facing a particular state. In this way the adjusted tax capacity of each state is determined.

Comparisons of the adjusted tax capacity for each state are then made with the average tax capacity per capita of all states. When the average tax capacity is multiplied by the population of each state the result is the so-called equalization yardstick of each state. In calculating the equalization yardstick consideration has been given since 1955, by way of an allowance for population density, to the higher tax needs of the City States and to the size of municipalities. Thus, in so far as tax-strong states also tend to be states with relatively high population densities (large cities)--and this is in fact the general pattern--the intensity of the financial settlement has been somewhat reduced.

Finally, the financial settlement yardstick is calculated for each state as the difference between its adjustment tax capacity and its equalization yardstick.

The way the settlement works can perhaps be illustrated as follows in three steps. The adjusted taxable capacity is given by:

$$(i) \text{ ATC}_i = \text{TC}_i - S_i$$

where TC_i is the taxable capacity of state i and S_i is the special burden of the state.

The equalization yardstick for a particular state (E_i) is given by:

$$(ii) E_i = \frac{\text{TC}_x}{P_x} \cdot wP_i$$

where TC_x = taxable capacity of State x

P_i = population

$\frac{\text{TC}_x}{P_x}$ where x refers to the whole federal area

and W = the weight given to "need" associated with population density.

The financial settlement yardstick is given by:

$$(iii) Y = [\text{TC}_i - S_i] - E_i \\ = [\text{TC}_i - S_i] - \frac{\text{TC}_x}{P_x} \cdot wP_i$$

Y is therefore positive for a state with above-average taxable capacity, as adjusted for special burdens and population density, thus requiring payment into the pool. Y is negative for a state with below-average taxable capacity, thus implying revenue entitlement from the pool.

States whose adjusted taxable capacities exceeded the equalization yardstick (i.e. those whose taxable capacity is computed at above the federal average) are in effect surplus states and, as such, are obliged to transfer funds to the so-called deficit states whose adjusted taxable capacities are calculated to be below the federal average. No federal grants, as such, are involved, instead, tax revenues are simply redistributed as between states through appropriate allocations in the budgets of the financially strong states. The Federal Government's role is as intermediary or broker--to see that the rules set out in the equalization law are adhered to and that the appropriate transfers are made each year in accordance with these rules.

1/ Taken from J.S. Hunter, "Federalism and Fiscal Balance". ANU Press 1977.

121. There is therefore a case for at least limited conditionality, for instance, by requiring that the grant funds should be spent on e.g. education or health²⁵ or requiring local governments receiving such grants to provide services of at least a specified quality and level. Compliance with any such conditions that might be imposed could be monitored through requirements for uniform and timely local financial reporting and through periodic national inspections and audits of local facilities. Although in the current situation in Hungary it is probably politically inadvisable to make major change in the present unconditionality of the grant, at the very least the national government should make every reasonable effort to improve local financial reporting--for example, making the provision of financial reports a condition for receiving grants--as well as attempting to improve the information base on the provision of local public services.

122. Size of the Grant. The determination of the total size of the normative grant also requires further consideration. At present, this determination is entirely up to the national government, which annually proposes a transfer in the context of national budget formulation. As outlined in Section I, many countries use a non-discretionary mechanism which fixes the size of the grant in a transparent way. This will have substantial advantages from the point of view of both central and local budgeting. Since the amount of the local transfer is determined, the central government is to some extent insulated from pressure to increase its support of local governments. On the other hand, local governments can budget with much greater certainty when they know that the total level of central support will vary with, e.g., income tax collections (distributed in accordance with a known formula) than when they are totally at the mercy of discretionary central policy.

123. Re-Design of the Grant to Simplify and Incorporate Tax Capacity. However the unconditionality of the grant and the determination of its total are settled, the present distribution formula of the normative grant should definitely be altered. As noted above, at present there are (basically) two elements in this formula: equalization (per capita) and needs.²⁶ A third essential element in any general grant formula is to make some explicit allowance for the revenue-raising capacity of local governments.

124. To incorporate these three elements, the basic formula of Hungary's normative grant should be altered to include revenue raising capacity. Some version of the following general formula would achieve this:

$$G_i = eE_i - tR_i ; \text{ where:}$$

G is the amount of the grant,

i refers to a particular municipality,

E is some measure of expenditure "need" (for example, the present normative grant formula, or need defined in relation to population,

²⁵Of course, such legal requirements are inevitably to some extent only pro forma. The fungibility of money and the ability of local governments to alter other expenditures and taxes mean that requiring a grant to be spent on a particular activity does not necessarily imply that total (centrally-funded plus locally-funded) expenditure on the activity has gone up proportionally. Indeed, in most cases it will not.

²⁶The "equalization" element in the PIT transfer, for simplicity, is not discussed separately here since in effect this component of the PIT transfer can be considered as part of the equalization component of the normative grant.

or any other indicator(s) that seems appropriate and can be satisfactorily measured).

e is an assumed level of expenditure for each unit of measured need,

R is a measure of revenue capacity, and

t is the assumed rate at which this capacity is tapped (or taxed).

125. The simplification of the normative grant would involve a change in the present "eE", now allocated on the basis of 24 norms as proxies for needs. With respect to tax capacity, and assuming that the total grant above (G) is equal to the present normative grant and that the "needs" measure (eE) is that of the present formula²⁷, the introduction of the tax capacity element (tR) in this formula has three important effects. First, it will shift grant funds from "high-tax capacity" to "low-tax capacity" recipients. Second, it will stimulate all recipients, regardless of their estimated tax capacity, to tax that capacity at the assumed rate because if they do not do so, the grant they receive will be reduced precisely by the amount they fall below the assumed rate. Finally, if any recipient chooses to levy higher taxes than those assumed in the grant formula, it gets to keep all the extra revenues--that is, it is not "taxed" by having its grant reduced (in other words, it faces a marginal tax rate of zero).

126. Clearly, critical elements in this formulation are the nature of the simplification, and the measurement of tax capacity (tR). Several ways of simplifying the grant were identified, and some of them have been explored empirically (the results are presented in Annex I). The relationship between the present grant distribution and demographic indicators (presumed to have close fit with the existing norms) was explored using regression analysis. These regressions suggest that the present grant distribution can be closely matched using a simplified grant distribution formula based on only three variables: total population, the age cohort 0-18, and the age cohort 60 and above (see Annex I, Table II). Alternatively, the grant could be simplified in a way that does not match the present distribution, but whose distribution better meets Hungary's objectives.

127. Calculations of tax capacity are difficult in any circumstances, and perhaps particularly difficult in the case of Hungary today. Among the tax indicators one might examine--if data became available--are, for example, collections from the new duties, present PIT property tax and the "turnover"/new business tax. Moreover, while there appears to be considerable information in Hungary on the basic economic characteristics of the new local governments (population, its demographic characteristics) there is less available on their economic or tax bases. The Annex to this report explores some alternative estimates of revenue capacity, based on regression. These employ PIT transfers (a proxy for income levels), population and the industrial employment as independent explanatory variables. The 1989 "old taxes" are the dependent variable, taken as a proxy of taxes under the new tax regime. (See Box J: Estimates of Tax Capacity). These estimates of tax capacity suggest, broadly, that smaller localities exploit (what little) capacity they have, while larger municipalities' taxes are less than their capacity as estimated on the basis of these indicators (see Annex I tables). Further analysis, based on more recent data would be necessary to draw firm conclusions, however.

²⁷Both assumptions can be changed in any desired way without affecting the general argument.

Box J

Estimates of Tax Capacity

The estimates of tax capacity required for implementing a grant formula such as that suggested in the text are estimates of the ability of localities to raise revenue and not estimates of the ability of local residents to pay taxes. Both the "richness" of the locality relative to others and its taxing power are critical to such calculations. In the case of Hungary, as shown earlier, the principal tax instruments available to local governments are limited (with the possible exception, developed below, of the personal income tax). An appropriate measure of local capacity might include direct or indirect measures of such tax bases as property values, tourist activity, business turnover, and personal income.

Two alternative ways of utilizing such information are the so-called "representative tax system" (RTS) approach and the regression approach. Both use the same information but combine it in a different way to estimate the revenues that a given locality might be expected to collect, given its tax bases, if it levied taxes at average rates. Table 1 illustrates the RTS approach.

Each locality in Table 1 can be assumed to tap each of the three tax bases--personal income, value of retail sales, and value of property--for revenue. The average tax rate for each base is derived by calculating the total revenues from that base and dividing by the total value of the base. Thus the national average tax rate to be applied to personal income is $\$18,000 \div \$360,000 = 0.05 = 5$ percent; for retail sales the rate is $\$7,500 \div \$150,000 = 0.05 = 5$ percent; and for property is $\$17,500 \div \$350,000 = 0.05 = 5$ percent.

Table 1 Tax Base and Tax Rate Data for Three Hypothetical Localities

Item	A			B			C		
	Tax base	Tax rate (%)	Tax revenue	Tax base	Tax rate (%)	Tax revenue	Tax base	Tax rate (%)	Tax revenue (US\$)
Personal Income	60,000	0.100	6,000	120,000	0.050	6,000	180,000	0.033	6,000
Value of retail sales	50,000	...	0	50,000	0.070	3,500	50,000	0.080	4,000
Value of property	200,000	0.040	8,000	100,000	0.055	5,500	50,000	0.080	4,000
Total revenue	...	...	14,000	...	...	15,000	...	...	14,000
Per capita revenue <u>a/</u>	...	...	4,667	...	...	5,000	...	...	4,667

Source: Aaronson and Hilley: Brookings Institution. a/ Assumes 3 residents per locality.

When the average rate (5%) is applied to the value of each base, the following yields can be expected:

Tax Base	Revenue (dollars)		
	A	B	C
Income	3,000	6,000	9,000
Sales	2,500	2,500	2,500
Property	10,000	5,000	2,500
Total	15,500	13,500	14,000

(Continued)

Box J

Estimates of Tax Capacity

Alternatively, the regression approach would essentially do the same thing, but instead of determining the average degree of exploitation of the tax base by means of the weighted average of the actual taxes imposed, it could be determined by regression coefficients relating tax collections to indicators of the tax capacity (which would include measures of the tax base. A regression of the following sort would be developed:

$$TC = a + b_1 (PCY) + b_2 U + b_3 POP + b_4 I + b_5 R$$

where, TC = Tax collection
PCY = Per capita income
POP = Population
U = Urbanization
I = Industrial output
R = Retail sales, etc.

Coefficients on these variables would then be used to simulate/predict the expected tax collection in each locality based on its income, population and retail sales, etc. levels. The estimated coefficients on these variables could then be used to simulate the expected tax collection in each locality based on its income, population and retail sales, etc. levels.

Problems in Capacity Estimation. In practice, a number of important questions must be decided before either of these measures can be calculated. One such question concerns the scope of the revenues to be taken into account in calculating the "potential" revenue base: taxes? natural resource revenues? fees and charges? borrowing? In principle, it is clear that the base used for measuring capacity should be as broad as possible, given the substitutability and interdependence of different ways of raising revenue. The scope of the base to be used in measuring fiscal capacity is important because excluding some items from the base may render the comparison of relative capacity in different jurisdictions suspect. The RTS approach is deficient in failing to recognize the interrelated nature of various tax bases. In effect, it assumes that different tax bases affect capacity in proportion to their revenue productivity. The possibility that the capacity to tax a given base will be affected by the size of another base is ignored. In reality, there are clearly trade-offs between different ways of raising revenues. In particular, since measured tax bases are not independent of tax rates, capacity measures based on a subset of possible revenues are not independent of what is excluded.

The size of the tax base is also not independent of the choice of tax rate. For example, differential property tax rates may be capitalized into property values. Under the RTS approach, the revenue that each jurisdiction would derive if it applied the national average rate is estimated. If a jurisdiction actually did apply those rates, however, the measured base would be different than it is. Thus, the RTS approach introduces a systematic bias into the measure of capacity: it understates the tax capacity for jurisdictions with above-average rates and overstates it for below-average rate jurisdictions.

Another important question that arises with respect to defining an RTS base is how to weight the bases included. The approach used in Table 1 essentially calculates arithmetically the average effective tax rate for each base in localities actually imposing the tax. The alternative approach is to determine the appropriate tax rate by regressing revenues on some measures of potential tax bases. This approach has two advantages: The first advantage is that, unlike the "arithmetic" averaging of the RTS approach, which treats each tax base independently, regression permits interdependence effects to be taken into account. The second advantage is that what the RTS approach in effect does is to derive average measures and then use them to derive marginal conclusions about the added revenues that would result from changes. The results of this exercise are of course strictly meaningful only when the base in the jurisdiction under consideration is itself average, which is unlikely to be true in most jurisdictions. Again, the regression approach, which directly estimates the relationship between bases and revenues at the margin, is clearly conceptually superior in this respect because it takes into account the variation in total revenues as bases vary, rather than treating each base independently, as does the RTS approach.

Finally, it is important to note that whatever method is used, it is simply not possible to separate fiscal capacity and differing demands for public services meaningfully in these exercises. The measures derived are always hybrids of, on the one hand, differences in the level of desired services and, on the other, of differences in actual service levels relative to desired levels. Such measures are thus strictly meaningful as "capacity" measures only if differences in the level of desired service are assumed to be non-existent. This assumption may perhaps not be too bad in practice if it can be assumed without undue distortion that desired expenditure and revenue patterns are similar.

Three Alternatives for Reforming Local Government Finance

128. Reform of Hungary's local finances should have two basic components: strengthening local own-source revenues and revising the normative grant to simplify it and incorporate a capacity measure. Three variations of this "basic grant reform" are outlined below. Additional variations (and computer simulation of results) would help determine whether the resulting distribution of the grant is appropriate in light of Hungary's needs and the aims of the new local finance system. (Some preliminary illustrations and simulations are presented in Annex I.) These can and should be improved and extended as data become available.

129. All of the alternatives contain the "fundamental reform package" of improving local own taxes, simplifying the normative grant and introducing a tax capacity measure into the grant. What differentiates the three alternatives set out here is the treatment of the PIT transfer. Alternative I is basically to reform local taxes and to modify the normative transfer to incorporate some measure of tax capacity as described above, while leaving the PIT transfer as it is. Alternative II is a package consisting of the same own-revenue reforms and normative transfer reforms plus a proposal to distribute the PIT transfer by the same formula as the grant. Variant III consists of the same own-revenue and normative transfer reforms plus a proposal to make the PIT a truly "local" tax. These, in summary form are:

Basic Reform Alternative I:

50% PIT (as at present) + Grant [based on revised and simplified normative transfer which incorporates revenue capacity"] + strengthened local taxes and charges + other (matching and equalizing) grants.

Alternative II:

[50% PIT + grant] (based on simplified transfer formula which incorporates revenue capacity) + strengthened local taxes and charges + other (matching) grants.

Alternative III

(surcharge on central PIT) + [normative grant + equalizing PIT transfer] (based on simplified transfer formula which incorporates revenue capacity) + strengthened local taxes and charges + other (matching) grants.

The next paragraphs set out the broad outlines of these options in more detail.

130. **Alternative I.** Strengthening local taxes and leaving the PIT unchanged, Alternative I would reform the distribution of the normative transfer in a number of ways. First, it would incorporate tax capacity estimates, thus providing some (implicit) stimulus to fiscal effort. Second, the transfer norms (the α) could be simplified or made more transparent and tailored to localities' different cost structures. At present, there is some ambiguity regarding just how the weights in the grant were calculated and chosen--not only the relative importance of expenditure and per capita-related weights in the grant formula but also the extent to which the costs of specified services is covered. One possibility might be to cover the local cost of providing each designated service as closely as possible. Since no data was available on these cost structures, no estimates were made of this approach to grant redesign. Alternatively, since the grant is unconditional, it might be desirable only to simplify the grant. As discussed earlier and illustrated in the Annex, simulations of the impact of grant

simplification on localities were explored. The hypothesis was that a similar equalization outcome could be obtained by a far simpler formula--one that relies on age cohorts, for example.

131. Simulations are also reported in the Annex that use the tax capacity measure based on local PIT collection, population and industrial employment and a simplified grant formula based on total population and specific age cohorts described earlier. These first-round and very crude estimates suggest that Alternative I would favor that the smaller and medium-sized municipalities (up to 10,000 inhabitants). These would gain from Alternative I because first, the simplified grant emphasizes per capita indicators, and second, because their smaller tax capacity results in a higher central grant. Grants to municipalities with more than 10,000 inhabitants would fall because their estimated tax capacity is relatively greater. The broad outcome of this alternative, is that simplification and tax capacity introduce a slightly greater degree of equalization compared to the present grant formula. Whether this is desirable is not evaluated here.

132. Alternative II. Another approach would be, following the precedent set in 1991, simply to add the remaining 50% of the PIT to the total normative transfer and then to distribute the combined total [i.e., all PIT + grant] by the simplified needs/tax capacity formula set out above.²⁸ Conceptually, the total size of the transfer in this formula (together with whatever conditional matching grants are desired) in effect determines the extent to which the "fiscal gap" is closed, while the terms of the formula in effect determine how horizontally equalizing the transfer is with respect to both needs and capacities. As with the distribution of the grant under Alternative I, many refinements and variations of this scheme are possible. The simulations in the Annex explore one such variation, in which the PIT and the current grant are allocated by the same (simplified) formula incorporating tax capacity as above. The results suggest tentatively that this approach provides greater equalization than the present system and than Variant I: the grant distribution moves in favor of cities below 10,000 (benefitting those in the 5,000 range most), while those big cities with populations above 100,000 lose compared to the present allocation. It is more equalizing than a grant which is distributed on the basis of norms, and a PIT distributed on the basis of origin. This may or may not be desirable or appropriate. Further elaborations in which other norms are used, for example, may prove desirable, as may computer simulations of the effects of such variations.

133. Alternative III. Another refinement of the basic reform is to allow local governments in effect to impose their own income taxes, in the form of a surcharge on the national personal income tax.²⁹ This option deserves some attention because it has two advantages that seem important in Hungary today: (i) this refinement may lower the level of income taxes in Hungary without exacerbating the budget deficit; and (ii) it could induce more efficient local expenditure than would otherwise be the case.

134. Such advantages do not come costlessly: One argument against this approach is that it might render the already difficult task of administering the national tax system even more difficult. (See Box L for a discussion of administrative aspects.) It would also require an amendment of the Local Self-Government Act, which might not be politically popular. Nonetheless, the prospect of achieving both

²⁸Alternatively, the PIT (or some percentage of it such as the present 50%) could be allocated by a different formula--which could in principle be designed in as many different ways as the ingenuity of formula designers would permit but there seems no reason to introduce further complication.

²⁹Surcharges on other taxes such as the VAT or CIT are also possible: the PIT is preferred (a) because a tax imposed on local residents is more suitable for local finance than either a CIT or a VAT, (b) because localities already share PIT in Hungary, and (c) because it provides localities with a more stable tax base (wage income) than the corporate income tax would do, and is administratively much simpler than a surcharge on either CIT or VAT.

a more efficient (and democratic) system of local revenues and expenditures and a more efficient and lower level of total expenditures and taxes is sufficiently attractive to suggest that this alternative may deserve consideration.

135. Again assuming a reformed grant and strengthened local taxes, the essence of this approach is to remedy the inadequacy of the local tax base by supplementing it, as at present, with the local share of PIT, but to provide this share in a (different) form which specifically encourages local fiscal responsibility and effort. The central government would create some "tax room" by reducing personal income tax rates. Local governments could then take up this room if their expenditure requirements warranted it, and if local voters valued the expenditures which were to be financed sufficiently to be willing to pay the taxes.

136. Ignoring, for purposes of explanation, the two-year lag in the distribution of local tax revenues (and the equalizing PIT transfers) the following illustration of Alternative III shows how one could mimic the present PIT transfer level perfectly. First, the central government would lower PIT rates by half.³⁰ (Note that the other 50%, the remaining PIT, could still in effect presumably flow to local governments via the normative grant, as now.) Local government could then levy a flat-rate surcharge of 100% on national taxes, thus in effect collecting their 50% PIT share through the surcharge, rather than as a transfer. The surcharge would be collected by the national government and remitted to the localities. The overall national/local tax burden would be unchanged.

137. In this simple case which "mimics" the present system, exactly the same normative grant plus PIT transfer is paid by the national government to local governments in aggregate and exactly the same PIT transfer plus normative grant is received by each separate local government. Conceptually, in terms of the formula set out earlier, "eE_i" would consist of the present normative grant received by each locality plus the PIT revenues that would accrue to that locality if it applied a surcharge equal to 100% (again ignoring the two-year lag) of the national PIT (so that the total PIT paid by its residents would be exactly the same as under the present system). The present PIT transfer would then be exactly equal to the "tR" capacity component of this equation. In these circumstances, everyone would end up in exactly the same position as under the present system (see Box K).

138. In reality, however, while the results may look the same, the effects would be different. First, the local share of the PIT would now really be a local tax. Localities would have to choose the rates they impose. If, as seems likely, many of them would initially choose to levy lower taxes, the result would be both lower taxes in total and lower expenditures, since the total amount (Grant plus PIT and other revenues) at their disposal would of course be lower by the amount they do not collect. There is thus a strong incentive for localities to levy taxes at least as high as the taxes foregone by the national government. On the other hand, since they now have to justify these taxes directly to their voters there should be more incentive to spend this money efficiently.

139. Should a particular locality decide to increase taxes above the present local PIT "share", it will of course be able to increase its spending accordingly since there will be no reduction in the central normative grant as a result of its additional tax effort. Again, however, there will be great incentive to ensure that such additional funds are spent to the satisfaction of the voters. These incentives are not present in the present system. Such a check on local spending seems especially desirable in a

³⁰The "headroom" created by a reduction in the national income tax rate could be less (or more) than 50%. This number was chosen because (ignoring the two-year lag) it mimics the present 50% PIT transfer.

Box K

Hypothetical Example: Alternative III

The example below shows how PIT surcharge (Alternative III) would work. In the present system, local revenues are (broadly) the sum of the normative grant and the PIT transfer (columns 1 and 2). The center retains only half of its PIT collections (column 5). In the proposed system, local revenues (ignoring other local taxes and other grants) are the sum of the normative grant plus PIT surcharge: it is up to the locality, not the national government, to determine the total revenues. Central PIT is unchanged inasmuch as it reduces its tax rate to make headroom. Any increase in local PIT will increase local revenues.

I. Present System

	1	2	3	4	5
	Normative Grant	Transfer of PIT	Total Rev.* (Col. 1 +2)	Memo Items:	
				National PIT	Net PIT to Nation (Col. 4 -2)
Locality A	100	50	150	100	50
Locality B	120	30	150	60	30
			300	160	80

II. Proposed System

	Normative Grant	Local PIT <u>b/</u> surcharge	Total Rev. (Col. 1+2)	Memo Items:	
				National PIT <u>a/</u>	Net PIT to center (Col. 4)
Locality A	100	50	150	50	50
Locality B	120	30	150	30	30
			300	80	80

*Assumes local own taxes are zero, for simplicity

a/ At 50% headroom

b/ Assumes a 100% surcharge on the national PIT.

situation like that in Hungary today in which central transfers are likely, for political reasons, to remain basically unconditional.

140. Alternative III thus gives localities access to a broad tax base which can finance more adequately the extensive range of services they are supposed to provide. Although localities' fiscal effort is stimulated in a generally desirable fashion, it may result in a lower level of taxes in highly-taxed Hungary. It should increase the efficiency of local expenditures whether taxes go up, down, or stay the same. There are no minor virtues. However, it represents a major change and will require close consideration by the authorities at all levels. It should also be seen as a variant of the basic reforms, which is to strengthen local taxes and to simplify the grant.

Box L

Administrative Aspects of a Local Income Tax Surcharge

A number of administrative issues may be raised with respect to this proposal. However, the administrative problem is much less than is sometimes argued. The proposal is neither that there be 3070 separately-administered local income taxes nor that there be any significant change in the present system of national income tax administration. In reality, the added administrative burden imposed by this system is surprisingly small and may well be judged worthwhile in view of its advantages.

Each year each local government would establish the income tax surcharge to be applied for the subsequent year. Similarly, each year employees would inform their employers of their locality of residence as of a certain date such as December 31, just as they inform them of their family status. The wage withholding tables supplied to employers would obviously be bulkier, but the administrative task of the withholding agent would be exactly the same: assign each employee a code (family status, locality of residence, pay period) and look up in the corresponding table the tax to be withheld under that code from the gross wage paid. The amounts thus withheld would then be remitted to the central government in the usual way.

Perhaps the simplest way for the central government to make payments to localities would be to make 12 equal monthly payments based on the previous year's PIT allocation (or that of two years ago if the administration of APEH continues to be as slow as it has been to date), with an end-year adjustment--made by adjusting the payments in the next year--once all the numbers are added up from different withholding agents at the end of the year. Of course the annual report from such agents would have to aggregate the taxes withheld with respect to each locality.

Apart from the need to prepare and consult more complex withholding tables, the only additional tasks imposed by this system would appear to be (1) that employers have to report taxes withheld by locality once a year and (2) that the tax administration has to add up for each locality the withheld taxes reported by different employers.

The system proposed above should work satisfactorily with respect to taxpayers whose PIT obligations are entirely satisfied by final withholding by employers. For employees who file returns, however, for example, because they have more than one employer and are claiming refunds, or for professionals and others whose incomes are not subject to withholding, the system would work a little differently. When the tax office receives a return (for any reason), it will enter the residence locality code--set as specified above for withholders--and adjust the local as well as the national tax liability as necessary. This small additional task should not give rise to any administrative problems, provided the computerization of the income tax is sufficiently advanced. It should be emphasized, however, that this provision means it would not be practical to launch this scheme for at least a year or two, i.e., in 1993.

Local income tax liabilities computed on the basis of taxpayer returns would then have to be aggregated (which may in some instances mean subtracted from) with those computed on the basis of employer withholding returns. The total local income tax assessed (that is, the combination of the adjusted amounts withheld and any new assessments) for each locality would then be reported to the budget office and serve as the basis for allocating revenues in the subsequent year (or two years' time), as set out above. Note that subsequent adjustments in assessments, owing to appeals and enforcement actions for example, could not be taken into account in this system.

In sum, the only way to make a system of local income taxes workable in Hungarian conditions is (i) to leave all tax administration up to APEH; (ii) to use the locally-determined rates in combination with taxpayer declarations of residence as the basis for the initial calculation of local income tax revenues by APEH on the basis of employer return and direct taxpayer returns; and (iii) to leave all the business of paying out the funds to localities, and adjusting these payments--which would have to be made initially on an estimated basis--to accord with the final APEH report up to the budget authorities. Under no circumstances should the national tax office itself actually have to deal with the 3070 local authorities other than to be informed, once a year, of the income tax rate they propose to apply in the subsequent years.

141. Transition Issues. The amount of "tax room" to be provided to localities and the phasing in of the surcharge are important transition issues. If one has concerns, for example, about whether localities will in fact implement a surcharge, it might be appropriate for the center to impose a notional surcharge on behalf of the localities for the first one or two years, giving local communities time to decide at what rate they want to set it. Annex I explores in an indicative fashion, the contribution to total revenues of a 100% PIT surcharge.³¹ This ranges from less than 10% of total revenues in small localities (who might not see a point in levying a surcharge) to more than 20% for larger ones, who would therefore probably have incentive to levy it. In any case, for both administrative and legal reasons it would not be practical to introduce such a local income tax before, say, 1993.

142. An additional transition issue relates to the equalization implications of this option. It has been suggested that there is something inherently "bad" in equity terms about allowing local governments direct access to the income tax. Some local governments, for example, reportedly have no income tax base at present or have so little they may not gain much from the PIT surcharge. Some therefore conclude that it is somehow unfair or inequitable to let those local governments that have such a base exploit it. The logic of this conclusion is not apparent. The basic unequal distribution of local tax resources is precisely what the capacity element (tR) in the proposed grant formula is designed to deal with. In these poor localities, revenue capacity may be close to zero: accordingly, the normative grant they receive will be increased. Indeed, the present system with 50 percent of the national PIT flowing---without any effort on their part---to the richest localities is more inequitable, as recognized to a limited extent by the PIT equalization system. In the proposed system, such equalization could be much more fully and fairly achieved through the revised grant formula.

143. Some preliminary simulations of the implications of this further refinement of the basic reform (and assuming all localities impose a 100 percent surcharge) are presented in the Annex. It is also assumed that the "equalization" PIT grant is distributed on the same (simplified) basis as the normative grant. Not surprisingly, the results are not very different from Alternative I, since the assumption of a 100 percent surcharge essentially mimics this. Allocating the equalization transfers through the revised grant formula (Alternative III) is (very slightly) less equalizing than allocating it directly to poor localities (as in Alternative I). However, the difference is negligible and could be offset by additional variants of the grant formula. The assumption of a zero surcharge--no locality imposes any surcharge at all--is essentially captured by Alternative II, in which the PIT transfer disappears. Also, not surprisingly, this variant is more equalizing than the present system, benefiting villages and small cities (below 10,000) because of the added emphasis on per capita indicator and revenue capacity.

144. An attraction of this proposal for the national authorities may be that the explicit dependence of localities on the PIT strengthens the already strong case for taking strong action at the national level to prevent the erosion (and evasion) of this tax base through such devices as paying nontaxable allowances. The national government has to do this in its own interests: this proposal would give it some 3070 vocal allies in the political struggle to do so.

145. Combined with the basic reforms to local taxes and the transfer system suggested earlier, allowing local governments to impose income tax surcharges thus has four advantages. First, local governments--at least the richer ones--have access to a broad tax base so that they can more adequately finance out of local resources the extensive range of services they are supposed to provide. Second, although the revised grant formula would encourage local fiscal effort, the result would likely be a lower level of income taxes in highly-taxed Hungary. Third, whether taxes go up, down, or stay the same, the accountability of local governments, and the efficiency of their expenditures, should

³¹Again ignoring the two-year lag.

increase. Finally, adjusting the parameters of the grant formula permits any desired degree of equalization and any desired level of total central-local transfers to be accommodated. While some of these advantages may be secured at least in part without allowing local governments direct access to the income tax, the objective of lowering overall income taxes can only be achieved by these means.

146. The proposal as described above and ignoring the two-year lag is budget-neutral. In practice, however, the two-year lag in the distribution of PIT revenue to localities means the loss of state budget revenue from a 50% tax cut would exceed the gain from eliminating the PIT transfer. To make the proposal budget neutral with a 50% tax cut, the local surcharge would be 64% (equals the 1991 PIT transfer (Ft 46.9 billion) plus the equalizing grant (Ft 7.0 billion) in relation to 50 percent of total PIT revenue in 1991 (Ft 169.5 billion)).

147. The transfer of equivalent tax capacity to the local level, while budget-neutral for localities also, will significantly alter their taxing and expenditure incentives. The result should be both a more efficient (responsible, democratic) system of local expenditures and revenues and a more efficient (and lower) level of total expenditures and revenues.

148. Some Qualifications. The principal argument against local income taxation is administrative. Arguments that local income taxes reduce national fiscal flexibility or induce inefficient fiscal competition or inefficient resource allocation are at best incomplete and in general misleading. Since the functions local governments carry out are essential, as they are for the most part in Hungary, these expenditures have to be financed somehow, and the local income tax approach seems more likely than most alternatives to free the national government from the responsibility of financing some such services while still leaving it a free hand to alter its own tax system as it sees fit. Moreover, assuming the "benefit" model of local government is followed, such taxes simply constitute the price of local public services and have no adverse effects on resource allocation or on fiscal competition. On the contrary, their allocative effects are desirable, as is the competition they induce in lower-cost provision of desired public services.

149. Further examination of this idea in the specific context of the Hungarian tax administration will doubtless reveal both other problems and perhaps suggest other ways to get around them. If this alternative is to be developed, such examination is obviously required, as is further reference to the extensive experience with local income taxes in other countries.

VI. Reforming Investment Grants in Hungary

150. Local governments in Hungary receive three types of grants (described in Part A): specific (targeted) grants for investment, "addressed grants and gap-filling (deficit) grants. The most important of these grants and the only ones which constitute a permanent feature of the system are the matching targeted grants. Matching grants (see Box M) have important economic and fiscal advantages in terms of both allocative efficiency (spillovers) and the efficient use of scarce central government resources to attain desired levels of certain services. In addition, while of course rendering local governments more susceptible to central influence and control, matching grants have the important political advantage of introducing an element of local involvement, commitment, accountability, and responsibility for the aided activities. Moreover, properly-designed matching grants may contribute to equalization (horizontal fiscal balance) and, like all other transfers, they help to resolve any basic fiscal mismatch (vertical fiscal balance) problem. Unfortunately, neither theory nor the available empirical studies provide clear guidelines to assist in determining the precise matching rate appropriate for particular expenditure programs, let alone how those rates should be varied in accordance with the characteristics of different local governments.

Box M

Matching Grants

In what is called a matching (conditional) grant, the central government pays only part of the cost of certain expenditures carried out by local governments. Several rationales for such transfers may be distinguished, each with different implications for program design. The rationale with the strongest basis in the economic literature is that the benefits from the local activity in question may spill over to other jurisdictions, that is, provide benefits to localities other than those which decide whether to undertake the activity. Since such external benefits will not be taken into account by any particular local government in deciding how to spend the funds at its disposal, in general too little such externality-intensive activity will be undertaken unless the local government receives a unit subsidy just equal to the value at the margin of the spillover benefits. The correct matching rate (m), or the proportion of the total cost paid by the central government, should thus be related to the size of the spillovers. This rate may perhaps decline as the level of expenditure rises, if the externalities diminish. Conceivably, it may also vary across localities if there are reasons to expect greater externalities in some places (upstream as opposed to downstream localities) than in others.

No country anywhere has achieved full equalization of local fiscal capacities. A uniform matching level offering, in effect, the same "price" to different local governments will therefore in reality discriminate against poor regions. Indeed, even if revenue bases were fully equalized, there might still be grounds in terms of need or cost differentials for including some additional equalization in matching grant formulas. For example, per capita grants for roads in sparsely populated and mountainous regions should generally be larger because the per capita cost of achieving any particular standard of road service will obviously be higher.

A quite different rationale for matching grants may arise from the existence of a severe central government budget constraint. If the central government wishes to use its scarce budgetary resources to attain given standards of expenditure on certain services provided by local governments, it should pay only as much of the cost as is needed to induce each local government to provide that level of service. With a grant of " m " percent of cost, (" m " may be anything up to 100% of cost) the effective price to the locality is " $(1-m)$ ". To ensure maximum total (local plus central) expenditure on the service in question, given the size of the central government contribution, the optimal way to allocate a given total transfer among localities will then be inversely to the price elasticity of local demand for the service (assuming no cross-price elasticity effects).

For these reasons, matching grants should as a rule be inversely correlated to the income level of the recipient government. The purpose of such transfers is essentially to ensure that all local governments, regardless of their fiscal capacity, can provide a similar level of certain specified public services to their residents. Note that this approach differs from the general equalization argument discussed earlier for three distinct reasons:

- (1) specific services are designated - perhaps because they are thought to entail spillovers, perhaps because they are considered especially meritorious;
- (2) the specific level of service to be provided is also established;
- (3) the payment of the grant is conditioned on that level of the specified services in fact being provided.

The idea is simply to set the price of the service, $(1-m)$, to each local government in such a way as to neutralize differences in capacity by varying the matching rate, (m). Ideally, of course, information on both price and income elasticities is needed to achieve this goal. The higher the income elasticity, the higher the matching rate needed for low-income recipients (to offset the higher local expenditures on the aided service in higher-income areas), and the higher the price elasticity, the lower the matching rate needed to achieve a given level of total expenditures. In practice, there is thus a case for varying the matching rate inversely with income levels even when only the incentive effects (and not the distributional effects) of matching grants are considered.

151. The central government may want to restructure the system of grants to identify more closely both the degree of spillover and the central-local relative priorities (see Box M). Moreover, as noted in Section VII below, the government may want to extend finance on a loan rather than grant basis to encourage cost recovery. With respect to the addressed grants and distressed area grants, it is the mission's understanding that these are transitional devices. The addressed grants--if not transitional--should be combined with the targeted grants program, and subjected to the same matching principles described above. The revised normative grant system proposed earlier should adequately replace the distressed area grants. Finally, the split between grants for investment and grants for current expenditure (and the implicit division of responsibilities between MOF and MOI) requires coordination between normative grants and investment grants.

VII. Borrowing, Capital Financing, and Other Issues

152. With the reform of the revenue system and abolition of the earlier system of credit planning and central guarantees of local investment finance, Hungary's municipalities have entered a very new world. Their low levels of investment financing, reflecting in part a large backlog of unmet needs, the limited revenue base that can be pledged for repayment--only 6% of total revenues is from local taxes--and the unrestricted borrowing authority gives cause for concern. The combination of unconstrained borrowing and open scope for entrepreneurial activity on the part of localities may be a particularly regrettable mix. Localities' access to credit should be constrained in some way. In the well-developed financial systems of higher income countries, such constraint could be expected to come from financial markets, which would make underwriting a local government debt difficult, unless the localities' financial strength was certain.

153. Appropriate modalities for capital financing and borrowing could include a number of options. In most countries, localities do borrow, albeit in restricted ways. These include (i) bond finance (quite unusual in developing countries because of the thinness of capital markets and absence of long term finance); (ii) borrowing from the commercial banking system; (iii) from a central government loan fund; or (iv) borrowings from a "municipal development bank" capitalized by the center. Unfortunately, the experience with such banks has been quite negative, with poor repayment records leading to weak institutions and incentives for localities not to repay.³² In most countries, whatever the option chosen (see Box N), the central government or its agency sets parameters for local access to credit, not least because, from a macro-economic point of view, it is generally not desirable to increase overall public sector borrowing. Which of these options and what type of controls are appropriate for Hungary would need further study.

154. While user charges are most likely to be viewed by hard-pressed local officials as a potential additional source of revenue, their main economic value is thus to promote economic efficiency by providing demand information to public sector suppliers and by ensuring that what the local public sector supplies is valued at least at (marginal) cost by citizens. This efficiency objective is particularly important at the local government level since the main economic rationale for local government in the first place is allocative efficiency. There is thus a presumption that, whenever possible, local public services should be charged for rather than given away (unless, of course, they are pure public goods or the explicit intention is redistributive). Indeed, one rationale for utilizing the residential property tax as a source of local finance is precisely because it is believed that, however roughly, property values bear some relation to services provided by local governments. Unfortunately, in most countries much less use is made of charging at the local level than seems desirable, and many of the charges that are levied are poorly-designed from an efficiency point of view.

³²See Ken Davey, "Municipal Development Funds and Intermediaries", PPR WP No. 32, for a review of experience and approaches.

Box N

Local Borrowing

The major task of a local government is to provide local public services to its residents. The benefit model of local finance (see Box B) suggests that, to the extent possible, people should pay for public services in relation to the benefits they receive. To the extent that benefits from some projects are enjoyed in the future, it is therefore both fair and efficient for future residents to share in the cost of financing such projects. Borrowing for local capital projects thus has a sound theoretical base. Moreover, borrowing is often the only practical way to finance large capital outlays without huge, and undesirable, variations in local tax rates from year to year. There is thus a strong case for financing capital projects at the local level through debt finance.

For three reasons, however, local access to capital markets is restricted in many countries. First, the central government uses debt finance as a stabilization tool, and it does not want local governments acting in such a way as to counter its policies. Second, local borrowing may in some circumstances crowd out private sector borrowing which might be considered to be more economically beneficial to the country. Third, to the extent central governments wish to avoid local governments becoming bankrupt they in effect implicitly guarantee local government debt, so that local government borrowing becomes a potentially open (and destabilizing) door to the national treasury. While none of these reasons provides a particularly persuasive argument for restricting local borrowing, since the alleged evils thus averted can be handled more directly and efficiently in other ways, the upshot is that in virtually every country local government access to capital markets is strictly controlled.

Among the methods used to control local borrowing are (i) permitting borrowing only for approved capital projects; (ii) requiring prior approval of local taxpayers for borrowing above a certain amount; (iii) requiring prior approval of central authorities for borrowing; (iv) restricting the amount of debt to some percentage of local revenues; and (v) permitting borrowing only from a central "municipal fund." All such restrictions obviously reduce local autonomy. On the other hand, it is also common to provide some capital assistance to local governments, either in the form of matching grants or explicitly or implicitly subsidized borrowing conditions.

155. Assuming localities are given full ability to set user fees, the central government might also consider replacing some part of investment grants to localities with loans. Greater reliance on borrowing has the advantage of favoring self-financing projects, which would put responsibility for decision-making with the local government where it belongs, and reduce the burden on the center and general taxpayers.

VIII. User Charges

156. Finally, much more importance should be given to user charges in helping to finance Hungary's local governments. The importance of user charges (see Box O) is greater than the relatively small amounts of money most countries collect from this variegated group of levies. To the extent that a local government is viewed primarily as a provider of services and the benefits of those services can be attributed specifically to individual citizens, properties, or businesses, the appropriate policy is clearly to charge the correct (roughly, marginal cost) price. Only thus will the correct amounts and types of service be provided to the right people, that is, those willing to pay for them.

Box Q

User Charges

The role of user charges in local finance deserves explicit consideration. At least three types of local "user charge" revenue exist almost everywhere: (1) service fees, (2) public prices, and (3) specific benefit charges. Since the terminology in this area in different countries is often confused and idiosyncratic, each of these terms warrants a brief explanation.

By "service fees" are meant license fees (marriage, business, dog, vehicle) and various small charges levied by local governments essentially for performing specific services - registering this or providing a copy of that - for identifiable individuals. In effect, such fees constitute cost reimbursement from the private to the public sector: indeed, in some budgetary systems, such cost recoveries are netted out and only net (of recoveries) expenditures are shown. Charging people for something they are required by law to do may not always be sensible - for example, if the benefit of (say) registration is general and the cost is specific - but on the whole there is seldom much harm, or much revenue, in thus recovering the cost of providing the service in question.

In contrast, "public prices" are the revenues received by local governments from the sale of private goods and services (other than the cost-reimbursement just described). All sales of locally-provided services to identifiable private individuals - whether public utility charges or admission charges to recreation facilities - fall under this general heading. In principle, such prices should be set at the competitive private level, with no tax or subsidy element included - except when doing so is the most efficient way of achieving public policy goals, and even then it is best if the tax-subsidy element is accounted for separately.

The final category of charge revenue encompasses "specific benefit taxes." Such revenues are distinct from service fees and public prices because they do not arise from the provision or sale of a specific good or service to an identifiable private individual. Unlike "prices" which are voluntarily paid - although like "fees" which are paid for services that may be required by law - taxes represent compulsory contributions to local revenues. Nonetheless, specific benefit taxes are (at least in theory) related in some way to benefits received by the taxpayer. In contrast to such general benefit taxes as fuel taxes levied on road users as a class or local taxes in general viewed as a price paid for local collective goods (see below) - specific benefit taxes relate to the specific benefits supposedly received by specific taxpayers. Examples abound in local finance: special assessments, land value increment taxes, improvement taxes, front footage levies, supplementary property taxes related to the provision of sewers or street lighting, development exactions and charges, delineation levies, and so on. Most such charges are imposed either on the assessed value of real property or on some characteristic of that property - its area, its frontage, its location.

157. The first rule of local finance should therefore be: "Wherever possible, charge". For efficiency, charges should be levied on those who receive the benefits: the direct recipients, whether businesses or "things" (real property) should therefore be charged. In view of the substantial importance of locally-provided intermediate goods to business, some local taxation of business may thus be warranted. Studies in different countries have shown that the distributive consequences of charging for local public services is not necessarily regressive. In any case, attempting to rectify fundamental distributional problems through inefficiently pricing scarce local resources is almost always a bad idea, resulting in little if any equity being purchased at a high price in efficiency terms.

158. What does this mean for local governments in Hungary? While it is beyond the scope of this report to address these issues in detail, at the sectoral level it is clear that fees, benefit levies and user charges for locally provided services could be more fully exploited. The basic principle of allocatively sensible local finance is that local expenditures should, wherever possible, be financed on a benefit basis. Where specific private beneficiaries can be identified (e.g. property owners abutting public improvements or recipients of day care in schools) and there is no overriding distributive argument or "externalities" to the contrary, beneficiaries should pay the economically correct price for what they receive, whether in the form of fees, user charges, or special improvement levies or contributions. To the extent that local governments are free to set such charges, they should be strongly encouraged to do so: any centrally mandated fees implemented by localities on behalf of the center should also emphasize cost recovery.

ANNEX I

SIMULATIONS ON LOCAL TRANSFERS IN HUNGARY: SIMPLIFYING THE NORMATIVE GRANT AND INCORPORATING REVENUE INCENTIVES

Introduction

1. As a part of the process of decentralizing public finance in Hungary, an important change was made in 1990 in the central government's method for making grants to municipalities. Hungary terminated its decades-old line-item, supplementary budget transfers. As outlined in Part A, these changes were intended to give localities greater autonomy in expenditures and to broaden their revenue base. Under the present system, "normative grants" and transfers of PIT revenues constitute the major source of local budgetary revenue. The grant formula and transfer system are complex: A major thrust of the recommendations of the World Bank mission to Hungary in June 1991 (described in Part B) was the reform of local transfers of revenue from the central government.

2. The purpose of this Annex is to illustrate, using Hungarian data, some possible approaches to reforming the system of transfers. Through regressions and simulations based on data supplied by the Hungarian Ministry of Interior (MOI) for some 3100 local governments, this annex explores and illustrates the broad implications of the basic, reformed grant design proposed in the main text. Three versions are explored.

(i) The basic grant reform¹ to be explored is a combination of the simplification of the normative grant, and the introduction of revenue capacity into the grant formula. (No change is made in the PIT transfer nor in the PIT equalizing grant.) The hypothesis was that it is possible to substantially simplify the grant, using far fewer indicators, without substantially changing the allocation of grant among local governments. As the subsequent discussion indicates, the results suggest that simplification is possible and revenue capacity, based on these estimates, works in favor of smaller, less well off municipalities.

(ii) A second variant of this is also explored, under which both the PIT and the normative grant are distributed by the simplified formula and revenue capacity is also factored in. The expectation is that this will be more equalizing than the present approach, in which PIT is allocated on the basis of origin, and in which richer localities presumably collect more PIT tax.

(iii) A third variant of the basic reform is also explored, in which localities are assumed to impose a PIT surcharge which replaces their present PIT transfer, and where the grant and the present equalization payments are distributed on the simplified basis. (Revenue capacity is also factored in.)

¹The "basic reform" in full is to (i) reform local taxes, (ii) simplify the grant and (iii) to incorporate revenue capacity while improving user charges, local borrowing and management of public assets.

* This Annex was prepared with the research assistance of Gabor Peteri of the Hungarian Institute of Public Administration, Budapest.

The hypothesis is that this is less equalizing than when a larger grant is distributed, but this may be desirable if strong weight is put on tax effort.

3. It should be emphasized that these simulations are only exercises, and are only indicative of broad directional effects. Data gaps and substantial additional work remain. The intent is to explore and illustrate. It would be possible to undertake additional analysis, if desired as data become available. Indeed, these simulations reflect barely the first steps in any necessary preparations for any new changes to the local transfer system in Hungary. Many questions remain. First, the uncertainty of fiscal data raises many questions: (i) we have left out counties, which were excluded from these calculations for lack of data; (ii) there are many proxy estimates in the data, and, absent data on tax bases, especially incomes and profits, retail sales, the calculations of capacity and simulations employing these, can only be thought of as very tentative. Second, the three variants are only some of the many that could be explored of the basic reform. They are explored and presented here in the spirit of illustration; to indicate what might be refined by way of further work, should this prove to be of interest.

4. The paper is organized as follows: After describing available data bases (Box I), Section A provides a brief summary of the alternatives and their simulated results. Then, estimates of grant simplification and revenue capacity are presented in Sections B and C. Based on these results, simulations are discussed under Section D: the combined effects of simplified grants with tax capacity (Alternative I) are discussed first, followed by the total revenue simplification with representative tax capacity estimates. (Variant II), and the PIT surcharge approach, (Alternative III). Finally Section E is a summary with some concluding remarks.

A. The Basic Reform and Its Variants: The Implications in Brief

5. The alternatives defined in the paper are basic variants on the present grant design. The "basic reform" (I) is built on a simplified grant design and on estimates of local revenue capacity. Simplification is a move from present "capacity" norms for distributing the normative grant (the equalizing grant remains distributed as before) toward a grant allocation according to real indicators such as demographic variables. Simulations with simplified grants, show the consequences for different localities of maintaining personal income tax as is, simplifying the normative grant and introducing representative tax capacity based on various indicators based on regressions on the "old" local taxes. As Table A shows, (and as discussed in detail later in the text) under the assumptions used, this approach benefits smaller and poorer localities relative to larger ones. Different measures of "simplification", or "tax capacity" would yield different results.

6. The second variant is basically a means of distributing more by the grant formula: the variant, simplification with representative tax capacity is measured as if PIT transfers (equalizing and other) were added to normative grants (essentially, all PIT and all of the transfer is allocated by formula). As Table B shows, the direction of the effect is more equalizing than the current grant, since PIT distributed on a "needs" basis (as under the revised grant system) benefits poor localities more than PIT distributed on an origin basis (present system). (Table B) Simulations illustrate that changing the grant's allocation by simplification and by incorporating tax capacity reinforce each other. Compared with the present system, transfers would be deflected from larger municipalities (cities) to smaller ones.

7. The effects of Option III are calculated under the assumption of a 100 percent local surcharge together with simplified grant formula which applies to the normative grant and the equalizing transfers. The results are difficult to distinguish from variant I; the outcome is only slightly less equalizing than

this alternative, mostly because PIT equalization grant is distributed by formula instead of to needy municipalities directly. However, greater equalization could equally well have been achieved--assuming it is desired--by modifying the grant distribution formula further. In actual operation, the PIT surcharge would probably enlarge the budgets of larger municipalities, as their present PIT share is higher. This partially compensates cities for their "losses" as a result of

Box I Fiscal Information and Statistical Sources

Four data bases were used.

(a) The first consists of data on 3,069 municipalities, and includes data for all 24 elements of the normative grant and the absolute amounts of PIT and PIT equalization grants in fiscal year 1991, as provided by MOI on diskette to the mission. These local data cover all information used for central fiscal planning: 23 municipal norms, total normative grants, 50 percent of the personal income tax collected in 1989, and the PIT equalizing grant. As simulations are focused on municipalities, county local governments were excluded, although they received special normative grants and grants for public services provided at county level (for example, child care, elder care). Thus, normative grants in the data base are 92 percent of total normative grants (Ft. 146 billion). These fiscal data differ from those approved by the parliament in 1990. The grants actually approved reflect different measurements of capacity indicators. (These were changed during the first quarter of 1991, when MOI and the new municipalities corrected them.)

(b) Demographic and employment data for 1989 are based on the Central Statistical Office local data base (TSTAR). As not all of the latest changes in administrative status are shown in the new municipal statistical codes, 3,032 local governments were characterized by CSO data. (The municipalities disintegrated in 1990-91 were mainly the smaller ones, so this loss has little effect on regression results.) Demographic and employment data for 1989 (TSTAR) were aggregated by municipalities, according to their administrative status in 1990. The greatest loss of data occurred here so that only 988 units were used in running the regressions.

(c) The municipal fiscal/tax revenue data are for fiscal year 1990 and are based on a "sample" of the earlier 1,586 local governments existing in 1990 (their number nearly doubled in 1991). These 1,301 municipalities encompass 85 percent of the population living outside Budapest and 79 percent of the settlements (i.e. local governments) in 1991. Revenue data for 1990 include the former "regulated" revenues, including 100 percent of PIT collected in 1988; grants (normative, equalizing, specific); locally imposed revenues including "old" own taxes, and Social Security Fund transfers.

The fiscal data were originally in Symphony, but the requisite groupings and estimates were done on files converted to dBase. Regressions were calculated by SPSS, which can read converted dBase files.

the new grant design. In the smallest municipalities, where the PIT ratio is low, a locally levied tax (surcharge) could be increased only with political losses. Here some kind of equalization on PIT differences is required. It is more equalizing than the present system, in that villages gain relative to cities (Table C). These can be compared with revision under present system, Table D.

8. Before presenting the detailed simulation results, some caveats should be mentioned. First, it is essential to recall that all three variants rely on the

Table A Estimates on Option I

a/By Administrative status

Municipalities	Total revenue estimate (mill.Ft)	Option I as % of total present rev.
City	110,163.7	85.2
Village	62,269.8	108.0
Average/Total	172,433.1	92.4

b/By Regions

Regions	Total revenue estimate (mill.Ft)	Option I in % of total rev.
North-Transdanubian	22,981.7	92.2
South-Transdanubian	25,712.9	88.2
Transdanubian (subtotal)	48,694.6	90.0
Duna-Tisza	32,083.9	100.4
Plain	33,043.9	95.7
Great Plain (subtotal)	65,127.8	98.0
North	21,727.0	91.5
Budapest	36,884.1	87.2

c/By Municipality size

Number of population	Total revenue estimate (mill.Ft)	Option I in % of total rev.
- 1999	25,104.4	99.7
2 000 - 4999	23,948.2	114.7
5 000 - 9999	15,069.7	107.7
10 000 - 49999	39,320.1	88.7
50 000 - 99999	14,056.7	80.0
100 000 -	54,934.4	85.0

Option I: PIT + simplified grant+equalizing grant-representative tax capacity

Table B Estimates on Option II

a/By Administrative status

Municipalities	Total revenue estimate (mill.Ft)	Option II in % of total rev.
City	104,062.4	80.5
Village	68,371.1	119.4
Average/Total	172,433.4	92.4

b/By Regions

Regions	Total revenue estimate (mill.Ft)	Option II in % of total rev.
North-Transdanubian	23,708.2	95.1
South-Transdanubian	26,887.2	92.2
Transdanubian (subtotal)	50,595.5	93.5
Duna-Tisza	33,414.6	104.6
Plain	35,109.1	101.8
Great Plain (subtotal)	68,523.7	103.1
North	22,976.5	96.8
Budapest	30,337.8	71.8

c/By Municipality size

Number of population	Total revenue estimate (mill.Ft)	Option II in % of total rev.
- 1 999	27,428.9	108.9
2 000 - 4 999	26,565.4	127.4
5 000 - 9 999	16,136.3	115.3
10 000 - 49 999	39,808.3	89.8
50 000 - 99 999	13,978.3	79.6
100 000 -	45,516.2	70.4

Option II: simplified grant + [PIT+equalizing grant]-representative tax capacity

Table C Estimates on Option III

a/By Administrative status

Municipalities	Total revenue estimate (mill.Ft)	OptionIII in % of total rev.
City	111,507.8	86.2
Village	60,926.3	106.4
Average/Total	171,433.4	92.4

b/By Regions

Regions	Total revenue estimate (mill.Ft)	OptionIII in % of total rev.
North-Transdanubian	23,336.9	93.6
South-Transdanubian	25,347.6	86.9
Transdanubian (subtotal)	48,684.5	90.0
Duna-Tisza	32,018.9	100.2
Plain	31,992.9	92.7
Great Plain (subtotal)	64,011.7	96.3
North	21,526.8	90.7
Budapest	39,210.4	90.4

c/By Municipality size

Number of population	Total revenue estimate (mill.Ft)	OptionIII in % of total rev.
- 1 999	24,064.0	95.5
2 000 - 4 999	23,489.3	112.6
5 000 - 9 999	14,716.4	105.2
10 000 - 49 999	38,685.0	87.2
50 000 - 99 999	14,535.7	82.7
100 000 -	56,943.1	88.1

Option III: PIT surcharge + simplified [grant + equalizing grant]-representative tax capacity

Table D Total local revenues
1991 Estimates

a/By Administrative status

Municipalities	Total revenues (mill.Ft)
City	129,300.1
Village	57,233.3
Average/Total	186,533.4

b/By Regions

Regions	Total revenues (mill.Ft)
North-Transdanubian	24,925.9
South-Transdanubian	29,152.9
Transdanubian (subtotal)	54,078.8
Duna-Tisza	31,956.1
Plain	34,528.6
Great Plain (subtotal)	66,484.7
North	23,745.3
Budapest	42,298.3

c/By Municipality size

Number of population	Total revenues (mill.Ft)
- 1 999	25,179.9
2 000 - 4 999	20,879.0
5 000 - 9 999	13,992.3
10 000 - 49 999	44,329.3
50 000 - 99 999	17,570.9
100 000 -	64,628.7

Total revenues = PIT + normative grant + equalizing grant.

same "building blocks"--the estimates of simplification and tax capacity. The estimates of grant simplification and tax capacity--essential building blocks for all three alternatives--are presented in Section B below. These are only estimates and reflect only one of many possible approaches and estimates. Second, the municipal revenue data used here cover only 50 percent of local revenues. Simulations incorporating revenue capacity are also built on estimates (since "old" local revenues were used to estimate revenue capacity). Third, grant data do not include transfers from the Social Security Fund, specific grants, other grants, or normative grants at county level. These grants to counties, in particular, modify the municipal public service network, because the distribution of functions between municipality and county functions is decided locally and differs from county to county. Thus, any change in grant design will have to be adapted to reflect these differences. (The relatively small number of county local governments, however, affords a possibility for other, program-oriented grants at this level).

9. The basic reform of simplifying the grant and promoting revenue effort has been explored here. There are two parts to the exercise. First, establishing whether the grant can be "simplified", and second, estimating "tax capacity". Both are estimated on the basis of the regressions described below. The implication of these modifications to the grant design are then simulated and results briefly discussed in Section D.

B. Simplification of Normative Grant Design

10. Normative grants are now allocated by a formula, based on 24 different indicators: Some five of them are need indicators such as population, age group of population, expressing municipal needs and resulting in "lump sum" transfers. The other nineteen indicators reflect the capacity of local public institutions (e.g. school enrollment, persons resident in homes for elderly). In 1991 the latter "capacity norms" allocated 60 percent of the normative grants while the population need norms allocated 40 percent.

11. Simplification of the normative grant design means a significant decrease in the elements of the formula and a shift from the capacity norms toward a need indicator based allocation model.² The arguments for a normative grant are evident: there is no discretionary treatment of municipalities, no discrimination by administrative status or counties; they are technically easier for central fiscal planners than the previous municipal line item incremental budgeting approach. The first step toward simplifying the normative grant system is to determine the linkages between capacity (students, beds, etc.) of local public institutions and "consumers" (youngsters, elderly) of those services. Then, (it is hypothesized) indicators of local "needs" based on "consumers", can then be substituted for capacity norms without major shifts in grant allocation.

²It should be noted that these are not simply formalistic changes, but help to transform the logic of central-local relations. A capacity-based grant design follows, and re-enforces the present, existing structure of municipal services and public institution network, preventing major funding shocks to the system. By contrast, a model built on real indicators, which reflect local needs, generates a higher level of equality. By implication, it may imply cutbacks or stresses for certain local budgets which currently receive significant funds.

12. Thus, to simplify grant design, the first question to be answered is how strong is the connection between local public institutional capacities and population age groups, within the same municipality? The results are shown in Table 1. The correlation coefficient discloses a significant linear connection between these selected capacity indicators and demographic data. The number of students and parallel age cohort of 0-18 year-olds shows a strong correlation ($r = 0.998$) (Equations 1-3). The coefficients shows that

Table 1 Regressions: Selected Capacity norms (D) against age cohorts by municipalities, 1991

Equation No. Dependent variable	Constant ¹	B ₁ Age cohort [0-18]	B ₂ Age cohort [60-X]	B ₃ Inactive population [0-18, 60-x]	R ₂
Equation 1 Student ²	- 31.445 (-3.981)	0.795 (890.321)	--	--	0.9962
Equation 2 Student ³	-117.700 (22.019)	0.919 (450.245)	--	--	0.9853
Equation 3 Student ⁴	- 16.861 (-1.585)	0.889 (739.533)	--	--	0.9945
Equation 4 Social inst. ⁵	1.247 (1.753)	--	0.036 (430.224)	--	0.9839
Equation 5 Social inst. ⁵	- 3.427 (-5.413)	--	--	0.019 (485.006)	0.9873

-- Not applicable

Note: N=3,032

¹T-statistics are in parentheses below regression coefficient.

²Kindergartens, elementary schools, secondary schools, vocational training, skilled workers training schools.

³Same as (#2), without Budapest.

⁴See (2) + kindergarten for nationalities and minorities, music schools, handicapped elementary school, workshops for apprentices, bilingual education, dormitories.

⁵Child-care, day home care for elderly, handicapped; homes for elderly, institutions for young handicapped.

for every 1,000 youngsters (in age cohort 0-18) there are e.g., 889 B_1 "units" of educational institutions (students, rooms in dormitories, etc.) (equation 3). Negative constant values can be interpreted as the range of population in that age cohort, where there are no public institutions. Put another way, public services are offered even when the population exceeds a minimum level. (Using equation (3) the range where $y \leq 0$ can be calculated for schools and related institutions, for example, as $16.861/0.889 = 18$: From a fiscal point of view, fiscal point of view, only a group of 18 or more 0-18 year-olds would be eligible for a central budget education grant at municipal level).

13. When Budapest is dropped out of the sample, there is a significant difference in coefficients. An increase in the capacity coefficient shows the weight of Budapest in the sample and the peculiarities of its educational services. In regression equation (2), table 1, B_1 is higher, than in equation (1), expressing a higher percentage of the age cohort enrolled at these schools. The higher ' B_1 ' coefficient in the sample including Budapest means there are more educational services in Budapest, which makes the value of ' B_1 ' closer to '1' (i.e., 100 percent supply in this group of services). Some of the students enrolled at secondary schools run by Budapest's municipalities commute to the capital from neighboring localities.

14. The number of rooms in social institutions (capacity) and the age cohort 60-X (inactive population) or the age cohort [0-18] + [60-X] are also strongly correlated ($r = 0.992$; $r = 0.994$) (Equations 4-5).

15. Based on these results, the first attempt to simplify the grant design is to distribute the normative grants according to new norms based on the age cohorts suggested above. Conceptually, this simplification has its rationale in that part of the grant targeted to education and social services. Other normative grants cannot be related to the given age groups, partly because they are already based on them. In addition, building on this demonstrated connection between public institutional capacity and age cohorts, it can also be assumed that the normative grants (dependent variable) and population characteristics are also correlated. Constrained by the available statistical data, only population and two age cohorts and (plus their combination) were used as independent variables (see Table 2).

Table 2 Regression for normative grants against selected population variables for 1991, by municipalities

Dependent variable	Constant	B_1 Population	B_2 Age cohort [0-18]	B_3 Age cohort [60-]	R_2
Grant	- 845.81 (-1.705)	13.134 (981.73)			0.9969
Grant	- 4411.7 (-12.463)		60.947 (175.873)	- 6.104 (-17.0)	0.9992
Grant	- 845.81 (1.705)	13.134 (981.73)	1.141 (51.535)	- 0.504 (-64.111)	0.9969

Note: N= 3032

T-statistics in parentheses below the regression coefficient

16. The regression coefficients are statistically significant. The coefficients are the future elements of a simplified normative grant system. Specifically, the 'B' coefficients are the per capita grant amounts (in thousand Forint) allocated to each municipality. Coefficients express how much (in thousand Forint) is to be allocated to a municipality according to these need indicators. In the subsequent simulations of grant simplification/allocation, this formula with three independent variables and a constant value provides one simplified design.
17. The negative constant value can be explained as the "minimum" level of population (age cohort) where the central budget provides grants to the municipalities. This hypothetical range (where $y \leq 0$) is determined by the actual present distribution of public institutions in Hungary. The minimum population level for central budget grants under this model comes from the regression (for example, $845.81/13.134 = 64$ inhabitants, based on equation (1), Table 1). The smaller municipalities are generally below the regression line, while the larger ones are more often above it, because public service capacities differ by municipality size. There are no value judgements implicit in these findings; i.e., they do not suggest that a population is too small to be "worth" a central budget grant. The location and number of public services today were decided by yesterday's regional policy, which favored cities over villages. If it were decided to compensate, small municipalities could receive grants to raise them up to today's minimums.
18. Because the total estimated grant amounts estimated based on simplified indicators closely match the total actual normative grant amounts, (98-100 percent, see Table 3.a), all three regressions are "good fits". To analyze the effects of the simplified grant design by size and by type of locality, the three regression estimates were compared (see Tables 3a-3c). Regardless of which regression-based estimate is used, with respect to grant distribution, the large negative value of the constant results in a low estimated grant for municipalities now getting a normative grant under Ft. 5 million. Above this level, the smaller (poorer) municipalities would get larger grants than under the present normative grant allocation in 1991. Under all three regression-based methods of distribution, the larger (richer) local governments get smaller grants than their present ones. Only the 45 percent of municipalities with medium-sized grants--normative grants of 10 million to Ft. 100 million--would gain under all three distribution methods.
19. Differences between estimated simplified grants and the actual allocation of normative grants can also be explained by differences in public services by municipality size (administrative status). Because capacity norms have the greatest share in present normative grants, the weight of "costly" services (such as secondary schools, and social services) is lower in relative terms in medium-sized municipalities than in municipalities with bigger budgets (see Table 3.b). Since they are located below the regression line, the simplified grant design will "pull" them up to the level of larger cities. Thus, the simplified linear regression model "undergrants" larger municipalities with expensive regional, inter-jurisdictional public services as well as the smallest municipalities with grants below of Ft. 5 million. This is because of the negative 'B₃' coefficient in equations 2 and equation 3, (Table 2) and the negative constant (equations 1, 2, and 3, Table 2). Negative values can be explained by the present poor level of public services in smaller municipalities and relative concentration of services in bigger cities. This applies especially to social services for the elderly. That is why in smaller municipalities--which usually have a higher concentration of elderly than do large cities--negative coefficients lessen the estimated grants.
20. Size-related differences have the strongest negative impact on municipalities with 50,000 to 100,000 people, the early county seats, where

Simplified grant estimates as percentage of normative grant

Table 3a

By Ranges of normative grant (in million Ft)

Normative grant	Normative grant	Population estimate ¹ %	Age cohort estimate ² %	Combined estimate ³ %	Municipalities %
- 5	2,641.6	87.0	-36.6	87.8	23.6
5 - 10	5,515.1	103.5	54.3	104.9	25.3
10 - 30	18,680.4	118.0	104.9	119.7	35.2
30 - 50	7,775.1	127.3	129.7	129.2	6.8
50 - 100	7,775.0	122.4	131.7	124.4	3.7
100 - 500	27,990.5	95.3	107.5	96.8	4.3
500 - 1000	11,738.5	84.2	94.6	85.5	0.6
1000	51,458.4	92.4	98.0	93.7	0.5
Total	133,575.0	98.2	98.2	99.6	100.0

¹Population-based estimate = - 845.81 + 13.134 population

²Age cohort based estimate = -4411.7 + 60.947 age cohort[0-18] - 6.104 age cohort [60-X]

³Combined estimate = -845.810 + (13.134 x population) + 1.141 age cohort[0-18] - 0.504 age cohort[60-X]

Table 3b

By Municipality size

Population	Normative grant (mill.Ft)	Population based estimate	Age cohort based estimate	Combined estimate
- 1999	100.0 (19510.8)	103.4	65.4	105.9
2000 - 4999	100.0 (15692.9)	124.9	121.7	126.7
5000 - 9999	100.0 (10271.7)	117.4	124.5	119.2
10000 - 49999	100.0 (32678.4)	93.6	105.5	95.2
50000 - 99999	100.0 (13098.4)	84.4	96.3	85.7
100000-	100.0 (42322.7)	105.3	98.9	90.7

Table 3c

By Ranges of normative grant

% range of actual normative grant	Population based estimate grant municipality %		Age cohort based estimate grant municipality %		Combined estimate grant municipality %	
+10	17.6	22.8	50.9	14.2	36.5	21.8
+20	65.5	40.3	68.8	27.4	61.7	41.9
+30	82.6	60.2	77.8	38.7	77.6	62.0
+40	95.1	75.7	91.9	49.1	89.9	77.9

many regional services were settled. Among the largest cities, with more than 100,000 people, estimates closely track the actual values. Another beneficiary of the simplified-regression-based estimates is the smallest municipalities, where fewer than 2,000 people reside. The gains are the highest for medium-sized municipalities, with 2,000 to 10,000 people (see Table 3.b).³

21. The comparison of simplified regression-based grant estimates and the actual normative grants presently received is shown in Table 3c. This shows that two-thirds of grants and 27-42 percent of municipalities are in a ± 20 percent range of actual normative grants. Thus, although the estimates are not a perfect fit with the grants distributed in 1991, this is because they are based on new principles. Grants are related to citizens/population instead of institutions/capacities. In conclusion, combined and population-based regressions neatly track the actual grant allocation. Here, the ± 40 percent range covers 76-78 percent of municipalities (Table 3.c). Compared to normative grants allocated in 1991, the simplified regression-based grant design, will result in lower grants to the largest and the smallest municipalities. The medium-sized municipalities (2,000 to 50,000 people and normative grants of Ft. 5 million to Ft. 100 million) gain additional funds.

C. Measures of Tax Capacity

22. In addition to grant simplification, stimulation of revenue capacity is another important element of local fiscal reform. There are three types of "own revenues", which can be regarded as bases for estimating own revenue capacity. These are: (i) fees, charges, duties and similar small scale receipts; (ii) Local taxes (there are five); and the PIT.

23. The revenue-incentive element of the revised grant formula requires estimates of tax capacity. Municipal tax capacity can be measured by a representative tax system (RTS) or by regression, based on existing fiscal information. As revenue capacity in the formula is deducted from the assumed "expenditures," municipalities whose tax collection is higher than their estimated tax capacity (however measured), benefit from the additional revenue, while municipalities collecting less tax revenue than the amount calculated by the representative tax capacity are not compensated for these "losses."

24. Under the RTS, revenue capacity is calculated as if each local government applied average tax rates to its own tax base. The representative tax system approach was not used because data on neither tax rates nor the tax bases of each municipality was available. Instead a regression model was used to estimate determinants of tax capacity, where the dependent variable is the aggregated (old) tax yield of each municipality and the independent variables are available fiscal and real indicators.⁴ The reliability of this model

³The "loss" for the thirteen larger cities could disappear in the longer run. Raising grants to smaller municipalities will encourage local investment in services currently being regionally supplied, thus decreasing demand for inter-jurisdictional services. During a transitional period, there are many ways to offset the difficulties encountered by localities by simplification. The level of addressed grants (for example, for mass transportation) can be increased for the 13 critically sized cities (50,000 to 100,000 people). The problem of the smallest municipalities (with normative grants under Ft. 5 million) could be also handled by a temporary grant system.

⁴ See Box H.

depends on several factors. First, in this regression, the cities' old (1989) taxes were used as proxies for the taxes likely to be raised under the new tax assignment regime. How representative they are of the tax capacity in the new system is of course a major issue. It is assumed that own-taxes in 1990 are related to tax capacity in 1991, based on the proposed continuity in "local" taxes. The respective 1990 and 1991 taxes are: (i) citizen fees (1990) and real estate taxes (1991); (ii) tourism tax (1990, 1991); (iii) contribution to communal investments (1990), contribution to municipal investments (1990), and communal tax (1991); (iv) charge on industrial plots (1990), and transfer revenues (1990); and (v) business tax (1991, new). Second, indicators used to estimate municipal fiscal capacity should express residents' ability to pay taxes. Here, indicators such as PIT (a proxy of income) and population were used: it would have been preferable to use other indicators such as retail sales, industrial output, or local GNP.

25. A simple first estimate of local tax capacity was made by calculating the share of own taxes in local revenues. In 1990 the total sum of "old" own taxes was Ft. 6.3 billion in our sample of 1,301 municipalities. The tax share in total revenues does not differ significantly between cities and villages (Annex table 6, column 1). This means, that village municipalities could levy those "old" own taxes that promised sufficient revenue. The relatively small share of "old" own taxes in total revenues can be explained by the nature of the local taxes and the size of the denominator (total revenues in 1990 cover all municipal receipts).

26. This simple method measure (with PIT in the denominator) was used as a cross-check for MOF's estimates of revenue capacity (see Table 6, Column 2).

Table 6 Proportion of "own taxes" by administrative status, 1990

Municipalities	Percentage of own taxes in revenues ¹	Percentage of own taxes in pit ²
Cities	5.9	18.3
Villages	5.8	15.5
Average	5.9	17.5

¹Total revenues = regulated revenues + total grants + SSF transfers + revenues of own interest.

²Pit: 100% of pit, collected in 1988, allocated to municipalities in 1990.

The share of own taxes in PIT was 17.5% on average. Modifying this for 1990 (because 100 percent of PIT revenue (t - 2) was transferred to municipalities the denominator was twice as large as in 1991). The appropriate ratio of local tax to PIT is 35.0 percent (2 x 17.5). For 1991 this works out to Ft. 16.5 billion, which is coincidentally, rather close to the MOF local tax estimates (Ft. 21.0 billion, see main text.)

27. The local tax capacity can also be estimated by the regression method. Of the six independent variables chosen for testing regression, five gave statistically acceptable results in simple regression, using "old local taxes" as proxies for local taxes as the dependent variable (see Table 7). For the multiple regressions, three variables were chosen: PIT, population, and industrial employment (see Table 8, Equation 4).

28. The regression estimates (Table 8) do not perfectly fit the actual "old" own tax distribution (Tables 10a-10c). This regression model underestimates old taxes in smaller municipalities and overestimates old tax collection cities with populations of 50,000-100,000. Estimated tax capacity is

Table 7 Simple Regressions: "old" own taxes¹ against population and employment variables in 1990, by municipalities²

Equation No. Dependent variable	Constant	Population	PIT (1,000 Ft)	R ₂
Equation 1 Local Tax	- 2544.336 (-7.193)	1.426 (67.314)	--	0.906
Equation 2 Local Tax	- 482.876 (-1.574)	--	0.189 (76.856)	0.857

Dependent variable	Constant	Population work- ing age ³	Active earners	R ₂
Equation 3 Local Tax	- 2523.259 (-7.178)	2.449 (67.783)	--	0.823
Equation 4 Local Tax	-2697.366 (-7.663)	--	3.006 (67.899)	0.824

Dependent variable	Constant	Industrial employees	% of industrial employment ⁴	R ₂
Equation 5 Local Tax	347.739 (1.039)	7.105 (68.080)	--	0.825
Equation 6 Local Tax	4391.493 (5.313)	--	15089.283 (6.123)	0.037

¹"Old" own taxes = fees of citizens + tax on tourism + contribution to communal investments + contribution to municipal investments + charge on industrial plots + transferred revenues.

²T-statistics in parentheses below coefficients.

³Age cohort 19-59.

⁴Industrial employees in percentage of active earners.

Table 8 Multiple regression for "old" own taxes by municipalities in 1990

Equation No. Dependent variable	Constant	PIT	Population	Industrial employment	R ₂
Equation 1 Tax ³	-243.843 (-0.7)	0.207 (15.755)	- 0.147 (-1.445)	--	0.8573
Equation 2 Tax	-378.280 (-1.239)	0.150 (15.640)	--	1.546 (4.206)	0.8595
Equation 3 Tax	-1177.49 (-3.280)	--	0.692 (9.631)	3.780 (10.631)	0.8397
Equation 4 Tax	37.806 (0.108)	0.176 (12.052)	- 0.248 (-2.406)	1.737 (4.630)	0.8603

therefore lower than actual "old" own taxes in municipalities with populations below 2,000 and much higher in larger municipalities (with populations of 50,000-100,000). This is partly due to the regression method itself and partly due to real differences in local tax capacities (three-quarters of "old" taxes were collected in cities). Using the tax capacity measure and accepting the "old" own tax as a basis for estimating revenue capacity, the ratios in table 10.b show that smaller municipalities are overtaxed while larger cities are undertaxed. Table 10.c shows estimated municipal tax capacity as percentage ranges of "old" own taxes. The results are fairly disparate, Table A, reflecting municipal and regional differences in the extent of the revenue bases. The widest range (40 percent) covers only a third of all municipalities.

29. In subsequent simulations of the changes in the grant formula, revenue capacity is calculated using estimated capacity based on the "old" own taxes. For lack of better data and estimates, the most complex regression (Table 8 equation (4)), was chosen for further simulations.

30. In terms of the totals, the estimates of local revenue capacity in 1991 were similar to each other and to the actuals (see Table 11). All were in the Ft. 15 billion-17 billion range, which is not very different from the calculations described earlier of the average share of old taxes in PIT. In three of the four regressions tested, the estimates of local revenue capacity in 1991 were similar to each other and to the actual (see Table 11). All were in the Ft. 15 billion-17 billion range, which is not very different from the calculations described earlier of the average share of old taxes in PIT.

D. Variants of the Grant Redesign: Some Simulations

Basic Reform (I): Grant Simplification with Representative Tax Capacity

31. In the formula proposing grant simplification and a measure of tax capacity, the weight of grants is greater than other components of revenue and will thus play the major role in determining the transfer's allocation. (The ratio of estimated own revenues is only about 8 percent, too low to

³See Table 7

Estimates of estimated capacity as percentage of "old" own taxes by municipalities in 1990 (See Table 8)

Table 10a By Administrative status

Municipality	Old tax (mill.Ft)	PITPOP Equation (1)	PITIND Equation (2)	INDPOP Equation (3)	PINDPI Equation (4)
City	100.0 (4644.1)	100.3	104.1	109.5	102.5
Village	100.0 (1615.2)	98.2	89.0	72.7	91.8
Average	100.0	99.8	100.2	100.0	99.8

Table 10b By Municipality size

Number of population	Old tax (mill.Ft)	PITPOP Equation (1)	PITIND Equation (2)	INDPOP Equation (3)	PINDPI Equation (4)
- 1999	100.0 (306.2)	64.2	48.6	- 6.5	73.9
2000 - 4999	100.0 (804.3)	83.1	76.8	69.0	77.3
5000 - 9999	100.0 (648.3)	99.3	100.6	219.5	94.6
10000 - 49999	100.0 (2187.0)	106.1	110.4	118.8	107.7
50000 - 99999	100.0 (524.4)	164.7	168.6	168.7	168.6
100000 -	100.0 (1789.0)	86.8	86.8	84.4	86.2

Table 10c By Ranges of "Old" Own Taxes

Estimates	±10% range	±20% range	±30% range	±40% range
PITPOP Equation (1) grant(%) municip.(%)	20.5 9.5	33.3 18.5	41.5 28.5	49.3 36.9
PITIND Equation (2) grant(%) municip.(%)	22.7 9.3	34.7 19.0	42.3 27.6	46.5 35.3
INDPOP Equation (3) grant(%) municip.(%)	22.7 6.6	26.9 12.1	34.7 18.3	46.8 25.6
PINDPI Equation (4) grant(%) municip.(%)	21.2 9.8	33.4 19.5	41.8 28.2	47.8 38.7

(1) PITPOP= - 243.843 + 0.207 pit - 0.147 population

(2) PITIND= - 378.280+ 0.15 pit+ 1.546 industrial employees

(3) INDPOP= - 1177.495 + 3.78 industrial employees - 0.147 population

(4) PINDPI= - 17.806-0.248 population + 1.737 industrial employees + 0.176 pit

Table 11 Estimates¹ of revenue capacity in 1991
(million Ft)

a/By Administrative status

Municipa- lity	PITPOP	PITIND	INDPOP	PINDPI
City	13 982.0	12 554.5	8 540.4	13 152.7
Village	2 852.8	2 229.2	176.3	4 436.0
Total	16 834.8	14 783.7	8 716.7	16 131.9

**b/Revenue capacity as a percentage of total normative and equalizing grant
by municipality size**

Population	PITPOP	PITIND	INDPOP	PINDPI
- 1999	3.2	1.5	-5.8	4.8
2000 - 4999	6.9	6.1	4.5	6.4
5000 - 9999	8.6	8.1	7.3	8.0
10000 - 49999	10.2	9.8	8.6	9.9
50000 - 99999	12.8	12.0	9.3	12.4
100000 -	20.7	17.7	9.8	18.9
Average	12.0	10.5	6.2	11.5

¹See Table 10

significantly modify the present distribution.) Simulations on Option I show the combined effects of grant simplification and representative tax capacity assumption (see Table A). Comparing the present and the calculated municipal total revenues the actual differences are explained by the factors discussed in Sections B and C. The amount of estimated revenues are 92.4% of the present local receipts, because the expected taxes are deducted from the "total" expenditures ($G=E-R$). So the estimates in Table A are to be compared with this (92.4) average value.

32. As shown, revenues in cities, in the South-Transdanubian region and on the Plains, in the municipalities with more than 10,000 residents are lower, than in 1991 municipal budgets. Grant simplification with tax capacity assumption is favorable for villages, municipalities on the Plains and in local governments with less than 10,000 residents (Table A).

Table A Estimates of Option I

a/By Administrative status

Municipalities	Total revenue estimate (mill.Ft)	Option I in % of total rev.
City	110,163.7	85.2
Village	62,269.8	108.8
Average/Total	172,433.1	92.4

b/By Regions

Regions	Total revenue estimate (mill.Ft)	Option I in % of total rev.
North-Transdanubian	22,981.7	92.2
South-Transdanubian	25,712.9	88.2
Transdanubian (subtotal)	48,694.6	90.0
Duna-Tisza	32,083.9	100.4
Plain	33,043.9	95.7
Great Plain (subtotal)	65,127.8	98.0
North	21,727.0	91.5
Budapest	36,884.1	87.2

c/By Municipality size

Number of population	Total revenue estimate (mill.Ft)	Option I in % of total rev.
- 1 999	25,104.4	99.7
2 000 - 4 999	23,948.2	114.7
5 000 - 9 999	15,069.7	107.7
10 000 - 49 999	39,320.1	88.7
50 000 - 99 999	14,056.7	80.0
100 000 -	54,934.4	85.0

Option I: PIT+simplified grant+equalizing grant-representative tax capacity

Total Revenue Under Variant II : Simplification with Tax Capacity

33. The second variant of the "Basic Reform" formulated a central transfer option based on simplifying the full revenue transfer to local government (PIT + PIT equalizing grant + normative grant). The total amount of PIT is also allocated by the simplified granting formula.

34. Since actual PIT is now distributed is more favorably for larger municipalities and the PIT share is low in villages, rural areas, and smaller municipalities, we would expect that allocating the PIT according to the simplified formula would be more distributive than either the present system or the basic reform. (See Table B) Comparing Table B and Table C one sees this is so. This variant reinforces the tendency of grant simplification, because here the grants are 40% higher than the present normative grants.

35. Interestingly, the "revenue capacity" measure built into the grant design formula does not compensate for low PIT in "poor" small, rural municipalities. Below populations of 2,000, PIT is only 17 percent of current (proposed 1991) revenue. The lower estimated resources in larger municipalities also owe much to the assumed higher revenue capacity. Thus, the idea behind this formula, to centralize the PIT and allocate it by the simplified granting method will help medium-sized municipalities (with populations of 2,000-50,000). The smallest municipalities are the greatest "losers" under this model, because their estimated resources are lower than in the present system, where they are the main beneficiaries to the PIT equalization grant. By itself, the revenue capacity element of the formula does not compensate for their PIT shortfall, (perhaps because this is a poor measure of revenue capacity).

Basic Reform with PIT Surcharge (III)

36. The PIT surcharge is a possible third new element of the proposed basic reform of the transfer system, in addition to grant simplification and the tax capacity assumption. Simulations of its local effects were run. First, however, we measured the actual contribution a PIT surcharge would make to local revenues. "How much revenue will the PIT surcharge yield (in relation to total local revenues if levied at the maximum rate?" This was measured by the share of PIT in local budgets. (Tables 12a-c) The share of PIT in "total" revenues varies from locality to locality, but it is generally higher in cities, urban regions, and larger municipalities than in smaller municipalities (see Annex table 12a). In the 169-city sample, the average rate of PIT in "total" revenues (PIT + normative grant + equalizing grant) is 60 percent higher than the equivalent share in the 2,900 village municipalities. Thus, PIT is an urban revenue, collected in higher amounts in the more industrially developed regions (see Table 12b). The Trans-Danubian region, for example, is more industrialized than the Great Plains region, and more of its revenues come from PIT (21.5 percent against 20.1 percent). The seeming disparity in rural/urban PIT yield, however, is a function of the income tax system itself: the PIT grants many tax exemptions for agriculture. Judging only by PIT revenue, the agrarian Plains look poorer than the Trans-Danubian region. Settlement structure also influences PIT revenue. The smaller municipalities are located in the North and South Trans-Danubian regions.

37. The PIT share in total revenues also differs by municipality size. Only 7.5 percent of PIT revenues is collected in the 74 percent of municipalities

Table B Estimates of Option II

a/By Administrative status

Municipalities	Total revenue estimate (mill.Ft)	Option II in % of total rev.
City	104,062.4	80.5
Village	63,371.1	119.4
Average/Total	172,433.4	92.4

b/By Regions

Regions	Total revenue estimate (mill.Ft)	Option II in % of total rev.
North-Transdanubian	23,708.2	95.1
South-Transdanubian	26,887.2	92.2
Transdanubian (subtotal)	50,595.5	93.5
Duna-Tisza Plain	33,414.6	104.6
	35,109.1	101.8
Great Plain (subtotal)	68,523.7	103.1
North	22,976.5	96.8
Budapest	30,337.8	71.8

c/By Municipality size

Number of population	Total revenue estimate (mill.Ft)	Option II in % of total rev.
- 1 999	27,428.9	108.9
2 000 - 4 999	26,565.4	127.4
5 000 - 9 999	16,136.3	115.3
10 000 - 49 999	39,808.3	89.8
50 000 - 99 999	13,978.3	79.6
100 000 -	45,516.2	70.4

Option II: simplified grant+[PIT+equalizing grant]-representative tax capacity

Table C Estimates on Option III

a/By Administrative status

Municipalities	Total revenue estimate (mill.Ft)	Option III in % of total rev.
City	111,507.8	86.2
Village	60,926.3	106.4
Average/Total	172,433.4	92.4

b/By Regions

Regions	Total revenue estimate (mill.Ft)	OptionIII in % of total rev.
North-Transdanubian	23,336.9	93.6
South-Transdanubian	25,347.6	86.9
Transdanubian (subtotal)	48,684.5	90.0
Duna-Tisza	32,018.9	100.2
Plain	31,992.9	92.7
Great Plain (subtotal)	64,011.7	96.3
North	21,526.8	90.7
Budapest	38,210.4	90.4

c/By Municipality size

Number of population	Total revenue estimate (mill.Ft)	OptionIII in % of total rev.
- 1 999	24,064.0	95.5
2 000 - 4 999	23,489.3	112.6
5 000 - 9 999	14,716.4	105.2
10 000 - 49 999	38,685.0	87.2
50 000 - 99 999	14,535.7	82.7
100 000 ..	56 943.1	88.1

Option III: PIT surcharge + simplified grant+[equalizing grant]-representative tax capacity

with populations below 2,000 (Table 12.c). Here, the share of PIT in local budgets is also lowest, below the village average.⁶

38. The average PIT revenue transferred to local governments is Ft. 4,453 per person, but ranges of 0 to Ft. 10,390 per capita. With one exception, growth of PIT's share in local budgets parallels the rise in per capita PIT revenues. The exception is in the ninth decile, where per capita PIT is high but where Budapest depresses the average (Table 13). Tables 12 and 13 both show the fiscal side the of urbanization. Small, remote village municipalities are generally poorer than large, centrally located cities. In Hungary, municipal size is the greatest determinant of regional and social differences.

39. The variant of the basic reform, which incorporates headroom for local taxation depends on differences in PIT distribution, because PIT defines how much "headroom" is to be taken up. As seen in table 12, villages, rural areas, and small municipalities have a lower proportion of PIT in their budgets than do larger localities. Reducing central PIT rates and simultaneously authorizing local governments to levy a municipal surcharge on PIT will leave local revenues intact, assuming that identical (100 percent) rates of surcharge are levied. In municipalities with populations below 2,000, the 100 percent surcharge could raise 14 percent of total revenues (Annex table 12.c). The 50 percent central PIT would simply be replaced by a locally defined tax burden of Ft. 2,062 per year per person--for every resident. In the second group of municipalities (with 2,000-10,000 residents), current PIT revenues are higher, around 18-20 percent of total. This increase makes the local tax worth levying. The municipal surcharge in cities with populations over 10,000 would yield more than 20 percent of local revenues.

40. The Variant III formula incorporates a discretionary local PIT surcharge, simplified grants, and the local tax capacity estimate. In the simulation, a 100 percent local surcharge was assumed, i.e., the allocation of current PIT (50 percent of 1989 PIT) is built into the model. It contains the simplified total (normative + equalizing) grants (equation (3), Annex table 4) and revenue capacity, based on the three variable regressions (equation (4), Annex table 8).

41. The simulation results show a modified local resource allocation compared to the present. Simulated revenues of cities and municipalities with more than 10,000 residents are less than the 1991 budget projections smaller municipalities gain, since grants, which are greatest part of local revenues, determine the fiscal status of smaller municipalities. Because equalizing grants are included in the total grant, small localities gain slightly over Option I also.

42. Conclusion. These simulations are only illustrative and do not reflect even the first steps in preparations for a new local transfer system in Hungary. Many questions remain. First, the uncertainty of fiscal data raises many questions: (i) we have left out counties, which were excluded from these calculations; (ii) there are many estimates in the data, and, absent data on tax bases, especially incomes and profits, retail sales, the calculations of capacity and simulations employing these data can only be thought of as very tentative. They are presented here in the spirit of illustration; to indicate what might be refined by way of further work, should this prove to be of interest. Uncertainty in estimates does not discredit the idea; further improvements in their calculation depend on the availability of data.

⁶Another observation to be made on the ratios in Table 12 is that the PIT surcharge is low where grant simplification results in gains and where, on the other hand, the taxes collected by the PIT surcharge are high, the simplified grant system cuts present municipal normative grants.

Proportion of PIT in "total" revenues¹

Table 12a By Administrative status

Municipalities	PIT percentage in total revenues	PIT distribution
City (169)	27.7	78.5
Village (2900)	17.5	21.5
Total/Average	24.7	100.0

Table 12b By Regions

Regions	PIT percentage in revenues
North-Transdanubian	23.3
South-Transdanubian	19.0
Transdanubian (subtotal)	21.5
Duna-Tisza Plain	23.1
	17.3
Great Plain (subtotal)	20.1
North	19.3
Budapest	39.6

Table 12c By Municipality size

Population	PIT percentage in total revenues	PIT (%)	Population (%)	Municipalities (%)
1999	13.8	7.5	16.1	73.7
2000 - 4999	18.2	8.2	14.9	17.4
5000 - 9999	19.6	5.9	8.8	4.3
10000 - 49999	21.3	20.2	22.1	3.9
50000 - 99999	24.9	9.3	8.0	0.4
100000 -	34.1	48.9	30.1	0.3
Average/Total	24.7	100.0	100.0	100.0

¹Total revenues = PIT + normative grant + equalizing grant.

Table 13 **Proportion of PIT by deciles of per capita PIT**

Deciles	PIT percentage in total revenues	Pit(%)	Population (%)
10.	42.4	0.7	0.3
9.	39.6	35.8	18.7
8.	41.3	1.0	0.5
7.	29.0	4.7	3.3
6.	28.4	9.9	2.9
5. (avg)	24.1	19.6	18.2
4.	20.6	10.7	13.3
3.	16.8	11.3	19.5
2.	11.4	5.9	16.4
1.	5.5	0.4	1.9
Average/Total	24.7	100.0	100.0

Annex Table 1 Local Government/Councils/Structure
in Numbers and Percentages
1st of March, 1989

Name	Number	Percentage
A. County councils	19	
B. County town cls.	8	4.8
C. Town councils	140	84.9
D. Town joint councils	17	10.3
E. Town councils		
Total (B + C + D)	<u>165</u>	<u>10.8</u>
F. Great village councils	118	8.7
G. Great village joint councils	162	11.9
H. Village councils	571	42.1
I. Village joint councils	507	37.3
J. Village councils		
Total (F + G + H + I)	<u>1358</u>	<u>100.0</u>
K. LOCAL COUNCILS		
TOTAL (E + J)	1523	98.8
L. COUNCILS TOTAL	1542	100.0

Source: Ministry of Interior

Annex Table 2 Self Government Structure
in Numbers and Percentages
1st of January 1991

Name	Number	Percentages
A. County Self government	19	
B. Town Self government with country rights	20	11.9
C. Town Self government	148	88.1
D. Town Self government TOTAL (B + C)	168	100.0
E. Village Self government	2902	94.5
F. Municipal Self government TOTAL (D + E)	3070	100.0
G. Self-governments TOTAL (A + E)	3089	

Note: The tables (1 and 2) do not contain the data of the (Budapest) in which a two-tier local government functioned.

Source: Ministry of Interior

**Annex Table 3 Grant Subsidy for Disadvantaged
Localities, 1991**

I. Subsidy for the newly funded local governments	230
II. Capital and its districts	1000
III. 7 Country governments	456.6
IV. 136 local governments	892.4
V. A Skyscraper in Pecs	65
 Total: Mid-year money	 2643

Source: Items (I-V): Peteri (op. cit)/ Law on the additional subsidy from the state budget (draft) and not Doc.# 2248.

Annex Table 4 Components of the Formula Grant, 1990

1. Lump Sum Grant to each Town and Villages (but only for populations above 200; below 200 the grant is Ft. 10,000 per capita)	Ft. 2 million
2. Per capita grant to Towns and Villages	Ft. 3,550 per capita
3. Per capita grant to Counties/Capital City	Ft. 1,220 per capita
4. Per capita grant for population of ages 0 to 18 and over 60	Ft. 2,850 per capita
5. Per capita grant for people in care:	
children in care	Ft. 175,000 per capita
homes for the elderly or mentally handicapped	Ft. 150,000 per capita
6. Per capita grant for primary schools	Ft. 31,000 per capita
7. Per capita grant to independent music school	Ft. 20,000 per capita
8. Per capita grant to schools for the mentally handicapped	Ft. 58,000 per capita
9. Per capita grant to high schools	Ft. 45,000 per capita
10. Per capita grant to vocational schools	Ft. 55,000 per capita
11. Per capita grant to boarding schools	Ft. 54,000 per capita
12. Grant for theaters and open air performances	Ft. 450,000 per capita

NB. In the case of pupils undertaking primary, high or vocational schools courses by correspondence or evening classes, one third of the full time per capita grant is payable.

BIBLIOGRAPHY

- Aronson, Richard and John Hilley. 1986. Financing State and Local Government. Brookings, Washington, D.C.
- Bukova, Anna and Gabor Peteri. 1991. "The Economic Characteristics of Local Governments in Hungary." Mimeo. Budapest, Hungary.
- Davey, Kenneth. 1990. "Local Government Reform in Hungary." Mimeo. Institute of Local Government Studies, University of Birmingham.
- _____. 1988. "Municipal Development Funds and Intermediaries". PPR Working Paper No. 32. World Bank.
- Government of Hungary. Law C. 1990. Act on Local Taxes.
- Hungarian Central Statistical Office. 1987. Statistical Yearbook 1985. Budapest, Hungary.
- Hunter, J. S. 1977. Federalism and Fiscal Balance. Australian National University Press.
- Kopits, George, et al. 1990. "Social Security Reform in Hungary." International Monetary Fund, Washington, D.C.
- Kupa, M. and G. Fajth. 1990. The Hungarian Social-Policy Systems and Distribution of Incomes of Households. Ministry of Finance, Budapest, Hungary.
- Ministry of Finance. 1991. "Finances of Local Self Governments - Local Taxes, 77." Public Finance in Hungary. Budapest, Hungary.
- _____. 1991. "State Budget." Public Finance in Hungary, No. 79. Budapest, Hungary.
- Ministry of the Interior. 1990. "Fundamental Acts on Local Self-Government in Hungary." Dr. Imre Verebelyi, ed. Budapest, Hungary.
- Newbery, David, April, 1991. "Reform in Hungary: Sequencing and Privatization." European Economic Review, Vol. 35, No. 5, Netherlands.
- Owens, J. and A. Panella, eds. 1991. Local Government: An International Perspective. Amsterdam and New York.
- Prud'homme, R., ed. 1991. Public Finance with Several Levels of Government. Ministry of Cooperation and Development, Paris, France.
- Shah, Anwar. 1991. "The New Fiscal Federalism in Brazil". Discussion Paper No. 124, World Bank, Washington, D.C.
- Shah, Anwar. 1991. "Perspectives on the Design of Intergovernmental Fiscal Relations". Working Paper No. 726. World Bank, Washington, D.C.
- Tanzi, Vito, ed. 1991. Fiscal Policies in Economies in Transition. IMF, Washington, D.C.
- World Bank. 1989. "China: Revenue Mobilization and Tax Policy." Red Cover Report, Washington, D.C.
- World Bank. 1990. "China: Financial Sector Review." Red Cover Report, Washington, D.C.

Policy Research Working Paper Series

	Title	Author	Date	Contact for paper
WPS 842	Capital Flows to South Asia and ASEAN Countries: Trends, Determinants, and Policy Implications	Ishrat Husain Kwang W. Jun	January 1992	S. King-Watson 31047
WPS843	How Financial Markets Affect Long-Run Growth: A Cross-Country Study	Ejaz Ghani	January 1992	A. Nokhostin 34150
WPS844	Heterogeneity, Distribution, and Cooperation in Common Property Resource Management	Ravi Kanbur	January 1992	WDR Office 31393
WPS845	Inflation Stabilization in Turkey: An Application of the RMSM-X Model	Luc Everaert	January 1992	B. Mondestin 36071
WPS846	Incorporating Cost and Cost-Effectiveness Analysis into the Development of Safe Motherhood Programs	Larry Forgy Diana M. Measham Anne G. Tinker	January 1992	O. Nadora 31091
WPS847	Coping with the Legacies of Subsidized Mortgage Credit in Hungary	Silvia B. Sagari Loic Chiquier	January 1992	M. Guirbo 35015
WPS848	How EC 1992 and Reforms of the Common Agricultural Policy Would Affect Developing Countries' Grain Trade	Merlinda D. Ingco Donald O. Mitchell	February 1992	P. Kokila 33716
WPS849	Financial Structures and Economic Development	Ross Levine	February 1992	W. Pitayatonakarn 37666
WPS850	Fiscal Adjustment and the Real Exchange Rate: The Case of Bangladesh	Kazi M. Matin	February 1992	D. Ballantyne 38004
WPS851	Sources of World Bank Estimates of Current Mortality Rates	Eduard Bos My T. Vu Patience W. Stephens	February 1992	O. Nadora 31091
WPS852	How Health Insurance Affects the Delivery of Health Care in Developing Countries	Joseph Kutzin Howard Barnum	February 1992	O. Nadora 31091
WPS853	Policy Uncertainty, Information Asymmetries, and Financial Intermediation	Gerard Caprio	February 1992	W. Pitayatonakarn 37664
WPS854	Is There a Case for an Optimal Export Tax on Perennial Crops?	Takamasa Akiyama	February 1992	G. Ilogon 33732
WPS855	Sovereign Debt: A Primer	Jonathan Eaton	February 1992	S. King-Watson 31047

Policy Research Working Paper Series

	Title	Author	Date	Contact for paper
WPS856	Latin American Women's Earnings and Participation in the Labor Force	George Psacharopoulos Zafiris Tzannatos	February 1992	L. Longo 39244
WPS857	The Life Insurance Industry in the United States: An Analysis of Economic and Regulatory Issues	Kenneth M. Wright	February 1992	W. Pitayatonakarn 37664
WPS858	Contractual Savings and Emerging Securities Markets	Dimitri Vittas	February 1992	W. Pitayatonakarn 37664
WPS859	Macroeconomic Management and the Black Market for Foreign Exchange in Sudan	Ibrahim A. Elbadawi	February 1992	V. Barthelmes 39175
WPS860	The Restrictiveness of the Multi-Fibre Arrangement on Eastern European Trade	Refik Erzan Christopher Holmes	February 1992	G. Ilogon 33732
WPS861	Private Saving in Mexico, 1980-90	Patricio Arrau Daniel Oks	February 1992	S. King-Watson 31047
WPS862	Higher Education in Egypt	Alan Richards	February 1992	J. Vythilingam 33677
WPS863	Intergovernmental Fiscal Relations in China	Roy Bahl Christine Wallich	February 1992	A. Bhalla 37699
WPS864	Privatization of Natural Monopoly Public Enterprises: The Regulation Issue	Ralph Bradburd	February 1992	E. Madrona 37496
WPS865	Food Security and Health Security: Explaining the Levels of Nutrition in Pakistan	Harold Alderman Marito Garcia	February 1992	C. Spooner 30464
WPS866	Regulatory and Institutional Impacts of Securities Market Computerization	Robert Pardy	February 1992	Z. Seguis 37665
WPS867	The Rationale and Performance of Personal Pension Plans in Chile	Dimitri Vittas Augusto Iglesias	February 1992	W. Pitayatonakarn 37664
WPS868	Mortality Reductions from Measles and Tetanus Immunization: A Review of the Evidence	Michael Koenig	March 1992	O. Nadora 31091
WPS869	Financing Local Government in Hungary	Richard Bird Christine Wallich	March 1992	A. Bhalla 37699